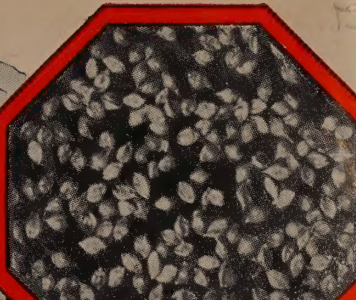




MILLET



COW PEAS



SOY BEANS



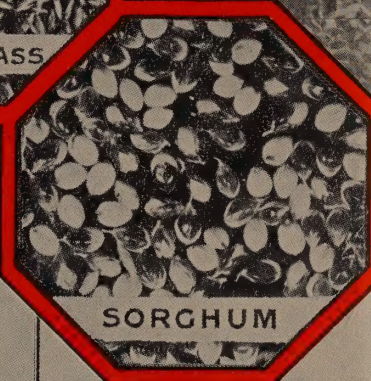
VELVET BEANS



RHODES GRASS



SUDAN GRASS



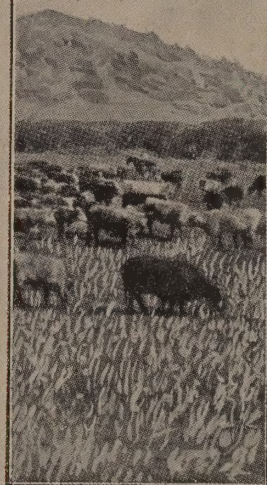
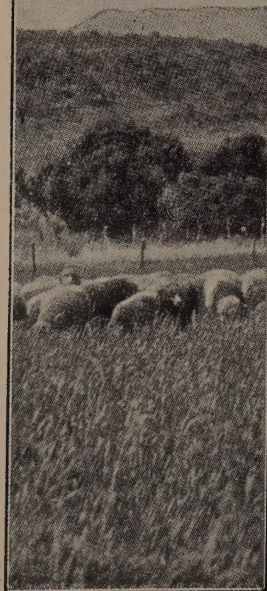
SORGHUM



LUCERNE

YATES'

BOOK OF
FODDER
AND
GRAZING
CROPS



FODDER & GRAZING CROPS

CONTENTS

	Page
Artichokes	19
Barley	17
Beans (Market)	20
Beet (Sugar)	15
Buckwheat	18
Bushel Weights	9
Calendar	1
Carrot (Field)	15
Clovers	4
Cow Peas	7
Field Peas	8
Fodder Trees	22
Grain (Seed)	17
Grain Sorghum	15
Grasses, Pasture	2-3
Implements	24
Kikuyu Grass	2
Kudzu Vine	8
Lucerne	5
Lupins	7
Melons (Cattle)	18
Maize	12-13
Mangolds	15
Manures . . Inside back cover	
Market Garden Crops, 20-21	
Millet	9
Mustard	18
Oats	17
Paspalum	2
Peas, Field	8
Peas, Market	21
Peanuts	7
Potatoes	16
Pumps (Spraying)	23
Pumpkins (Cattle)	19
Rape, Sowing	8
Rhodes Grass	2
Root Crops	15
Saltbush	18
Seed Sowers, Inside back cover	
Shade Trees	22
Sorghums	14-15
Soy Beans	6
Sprays and Pumps	23
Sudan Grass	10-11
Sundry Fodder Crops	18-19
Sunflower	18
Terms of Business	1
Trees	22
Vegetable Crops	20-21
Velvet Beans	6
Wheat	17

What are the Prospects?

IN districts where good autumn and winter rains have been experienced it is possible, on the law of averages, that a spring, not quite so favourable, will follow. By planning to sow summer fodder crops such as Sudan Grass, Millets, Sorghums, etc., as soon as the frosts are over and before the ground becomes dried up, it should be possible to maintain an abundant supply of green fodder for stock for the greater part of the summer. The advantages of this must be obvious to all.

On the other hand farmers in those districts which have not experienced such favourable weather and who are looking for an improvement in the spring, would be well advised to consider sowing some fodder crops to replenish depleted fodder reserves and augment those already held.

Each season now the use and value of spring and summer fodder crops is becoming more widely realised, and increasing quantities of such lines as Sudan Grass, Maize (for green fodder), Millets, Sorghums, Cow Peas, Soy Beans, and less important crops like Lupins, Mangolds, Peanuts, Velvet Beans, are being sown in nearly every district.

This catalogue contains full and up-to-date descriptions of all commercial fodder and grazing crops for spring sowing and even as a 'directory' of the newer varieties and the more recently introduced crops, will be of some interest to you. The current price list for all the within mentioned lines is sent you herewith; if you are buying at some later date please write for latest current price list, as new issues are published every three to five weeks.

ARTHUR YATES & CO. LTD.

ARTHUR YATES & CO. LTD.

SUPPLIERS OF RE-CLEANED AND TESTED FARM SEEDS

184-186 SUSSEX STREET, SYDNEY, N.S.W.

TERMS OF BUSINESS

CONDITIONS OF SALE AND NON-WARRANTY

WE believe that all Seeds Bulbs and Roots sold by us are of the description and kind specified by us at the time of sale but owing to the practical impossibility in many cases of being certain of this we give no undertaking that such Seeds Bulbs or Roots will correspond with the description under which they are sold and we make all sales subject to this condition. We further give no warranty expressed or implied as to their growth description quality or productiveness and will not be in any way responsible for the crop. If the purchaser does not accept the goods sold to him on these terms they are at once to be returned to us and any money paid to us will be refunded. **ARTHUR YATES & CO. LTD.**

PRICES.—We do not print prices in this Descriptive Catalogue as values fluctuate and some of our supplies have not been received into store at time of going to press. All charges are set out in our current Price List of Farm Seeds at time of booking order unless specially quoted otherwise. The Price List now current is sent you herewith, and later issues will be posted promptly on receipt of enquiry.

DELIVERY.—We deliver Seeds on rail or wharf Sydney, after which Seeds are on customer's account and at his risk. Orders sent by goods train are consigned carriage forward (except to unattended platforms), unless we are otherwise instructed at time of order. Delivery within the Suburban area of Sydney will be made of Farm Seeds, Seed Potatoes, Manures, and Garden Sundries, at the following charges:—28-lbs. and under, 9d.; 56-lbs. and under, 1/-; 2/- per cwt.

FORWARDING INSTRUCTIONS.—Please give full and careful directions with each order and we will do our utmost to comply with them. When no instructions are received we send according to our judgment.

SOWING CALENDAR

Approximate Times for Sowing are denoted by—

† for moderately warm climates where Oranges thrive.

* for cool climates, say where English Fruits thrive.

The most suitable times for sowing are very largely influenced by local conditions and seasons, and these and any local experience available should always be taken into consideration.

Farm Seeds	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Farm Seeds	Jan.	Feb.	Mch.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Artichoke, Jerusalem	..	†	†	†	†	†	†	†	..	..	..	..	Peas, for Garden	..	†	†	†	†	†	†	†	†	†	†	†
Barley, English	..	†	†	†	†	†	†	†	..	..	..	..	" " Market	..	†	†	†	†	†	†	†	†	†	†	†
Barley (other varieties)	..	†	†	†	†	†	†	†	..	..	..	..	Pumpkin	..	..	..	..	..	..	..	..	..	..	..	..
Beet, Sugar	..	..	..	..	..	..	..	..	†	†	†	†	Potatoes	..	..	†	†	†	†	†	†	†	†	†	†
Beet, Silver (Field)	..	..	†	†	†	..	..	†	†	†	†	†	Rape	..	..	†	†	†	†	†	†	†	†	†	†
Buckwheat	..	..	..	..	..	..	..	†	†	†	†	†	Rye Corn	..	..	†	†	†	†	†	†	†	†	†	†
Canary	..	..	..	†	†	..	..	..	..	..	..	..	Rhodes Grass	..	†	†	†	†	†	†	†	†	†	†	†
Carrot (Field)	..	..	†	†	..	..	..	†	†	†	†	†	Sainfoin	..	..	..	..	..	..	..	..	..	..	..	..
Cabbage (Cattle)	..	..	..	..	..	..	..	..	..	..	..	..	Saltbush	..	..	†	†	†	†	†	†	†	†	†	†
Chicory	..	..	†	†	..	..	..	..	†	†	†	†	Shallots	..	..	†	†	†	†	†	†	†	†	†	†
Clover (Sorts)	..	..	..	†	†	..	..	..	..	..	..	..	Sheeps Burnet	..	..	†	†	†	†	†	†	†	†	†	†
Couch Grass	..	..	..	..	..	..	..	†	†	†	†	†	Sorghums & Millets:	..	..	..	..	..	..	..	..	..	..	..	..
Cow Pea	..	..	..	..	..	..	..	..	†	†	†	†	Saccharatum	..	..	†	†	..	..	..	..	†	†	†	†
Grasses, Pasture	..	..	†	†	†	†	..	..	..	..	..	..	Sacaline	..	..	†	†	..	..	..	..	†	†	†	†
Kale, Thousand Headed	..	†	†	†	..	..	..	..	..	..	..	..	Planters' Friend	..	..	†	†	..	..	..	..	†	†	†	†
Kale, Chou Moellier	..	†	†	†	..	..	..	..	..	..	..	..	Early Amber Cane	..	..	†	†	..	..	..	..	†	†	†	†
Linseed (Flax)	..	..	..	..	†	†	†	†	..	..	..	..	Millet, Fodder V'ties	..	..	†	†	..	..	..	..	†	†	†	†
Lucerne	..	..	†	†	†	†	†	†	..	..	..	..	Millet, Broom	..	..	..	..	..	..	..	..	†	†	†	†
Lupins	..	..	†	†	†	†	†	†	..	..	..	..	Grain Sorghums	..	..	..	..	..	..	..	..	†	†	†	†
Maize, for Grain	..	..	..	..	..	..	..	..	†	†	†	†	Soy Beans	..	†	..	..	..	..	..	..	†	†	†	†
Maize, for Fodder	..	†	†	..	..	..	..	..	..	†	†	†	Sudan Grass	..	..	..	..	..	..	..	..	†	†	†	†
Mangel	..	..	†	†	..	..	..	..	†	†	†	†	Sunflower	..	..	..	..	..	..	..	..	†	†	†	†
Mangel, Half Sugar	..	..	†	†	..	..	..	..	†	†	†	†	Swede	..	..	†	†	†	†	†	†	†	†	†	†
Millet (See Sorghum)	..	..	..	..	..	..	..	..	..	..	..	..	Tagosaste	..	..	..	†	†	†	†	†	†	†	†	†
Mustard	..	..	†	†	†	..	†	†	†	..	..	..	Tares	..	..	†	†	†	†	†	†	†	†	†	†
Melon, Cattle	..	..	..	..	..	..	..	..	..	†	..	..	Tobacco	..	..	..	..	..	..	..	..	†	†	†	†
Oats, for Fodder	..	..	†	†	†	†	†	†	..	..	..	..	Turnip (Field)	..	..	†	†	†	†	†	†	†	†	†	†
Oats, for Grain & Hay	..	..	†	†	†	†	†	†	..	..	..	..	Velvet Beans	..	..	..	..	..	..	..	..	†	†	†	†
Paspalum	..	..	†	†	†	..	..	..	†	†	†	†	Wallaby Grass	..	..	..	..	..	..	..	..	..	..	..	..
Peanuts	..	..	..	..	..	..	..	..	..	..	..	..	(Danthonia)	..	..	..	..	..	..	..	..	..	..	..	..
Peas, Field, for Fodder	..	..	†	†	†	†	†	†	..	..	..	..	Wheat, for Fodder	..	..	..	†	†	†	†	†	†	†	†	†
" " " Soiling	..	..	†	†	†	†	†	†	..	..	..	..	" " Grain	..	..	..	†	†	†	†	†	†	†	†	†

THE IMPORTANT GRASSES

For SPRING and SUMMER SOWING

THESE four grasses, but especially *Paspalum Dilatatum* and Rhodes Grass, are very extensively used in our dairying districts, while Rhodes Grass will also succeed well in many parts of our Western Country where the elevation is not great. They should be sown in late spring, summer or early autumn when the weather and soil conditions are favourable for germination and quick growth.

Paspalum Dilatatum (Yates' Prime "Hand Shaken")

Does well planted in conjunction with Rhodes Grass in coastal districts after a burn. The seed should be sown during spring, summer, or early autumn, say from August to April. Succeeds best where moist warm conditions prevail, but will prove a very profitable crop even where a moderate rainfall is experienced, and under these latter conditions it is not so likely to become rank and difficult to deal with. Once introduced into swampy land *Paspalum* soon covers it with a thick mat and gives good grazing where the land would otherwise be useless. It is an excellent practice to sow a few pounds of Perennial Red Clover and White Clover with the *Paspalum*, as these provide feed when the latter is more or less dormant. Sow ten to twelve pounds of *Paspalum* per acre. Special quotes for large quantities.

Kikuyu Grass (*Pennisetum clandestinum*)

We undoubtedly have in Kikuyu a grass of which the quality and capabilities are hardly yet realised by farmers and pastoralists. It is a native of British East Africa and is a perennial grass with a strong system of surface and underground runners. On this account it is a very quick spreading variety and also remarkably drought resistant.

It should succeed and be profitable to grow in almost any part of New South Wales where the rainfall is 20 inches or over. It is of particular value for poor sandy soils where it is usually difficult to grow anything but weeds, though naturally the richer soils will give correspondingly better results.

The underground runners quickly root at the joints then send up fresh growths to a height of 1 foot or 2 feet or even more in rich localities.

Under coastal conditions it is the quickest growing grass we have, growth taking place continuously, except where heavy frosts are experienced.

On the slopes it does fairly well, and in Queensland also it is creating widespread interest. It will, we think, be found a useful grass in many parts of Victoria, particularly where *Paspalum* is found.

It does not seed in Australia, therefore it can only be distributed by means of rootlets which we can supply at any time from late winter on. Plantings are usually made during the spring, summer and early autumn months. It is recommended to plow the land, opening up furrows six feet apart, and dropping in the rootlets every three feet. At this rate about 2,500 plants will suffice for one acre. It adds to the value of the pasturage and gives a more balanced ration if some of the clover family can also be introduced, and we suggest $\frac{1}{2}$ lb. White Clover or Subterranean Clover, and in more favoured districts Perennial Red Clover.

Approximate cost of Postage and Packing on Kikuyu Grass Roots—Per 100, 1s.; per 50, 9d.

Rhodes Grass (*Chloris gayana*)

A very strong growing grass, which, rooting at every joint, soon covers a large area. About the only grass that will hold its own with *Paspalum*. Excellent for moist situations and hot climates, but succeeds well in a large range of situations and climates, except where heavy frosts are experienced. It is quick germinating after rain and makes growth rapidly and is very palatable to all stock. When well established it is remarkably drought resistant. It is very largely used for surface sowing after clearing and burning off scrub in the coastal areas, and for this purpose there is nothing better. In all the dry inland districts of Queensland Rhodes Grass is proving of the utmost value and has also been of great value in Western N.S.W., not only in mixed pastures but as a special grazing crop when planted with Lucerne, say four pounds of Rhodes and two or three pounds of Lucerne per acre. When sown alone six to ten pounds per acre is sufficient if good quality seed is used.

Paspalum Compressum

(Also known as Dorrington Grass or Carpet Grass).

A dwarf compact growing variety of *Paspalum*, proving of great value for poor sandy stretches of country where *Paspalum Dilatatum* does not do well; makes well matted roots and is suited for warm climates. Sow five pounds per acre.

Couch Grass (*Cynodon dactylon*)

Grows all over Australia but its economic value is confined to the temperate coastal districts. It is of great value for binding loose soil, sand banks, etc. It should not be planted near cultivation paddocks, as it is difficult to eradicate. Sow in warm weather after good rains. Sow ten pounds per acre.

In warm climates this grass is very largely used for lawns, making a close, fine turf, and withstanding considerable heat and drought. For this purpose a pound will sow about ten yards square.



A luxuriant Kikuyu Grass Pasture at Wollongbar.

Dept. of Agric. Photo.

OTHER PASTURE GRASSES

Autumn Sowings only are recommended, except under special circumstances or where otherwise stated. The varieties in the following list are introduced grasses (except Wallaby and Mitchell Grass) which have been proved to have a distinct value in the temperate parts of Australia with a good average rainfall. They can be recommended for the New South Wales coast and tablelands and for districts with similar climatic conditions in other States.

RYE GRASSES

ITALIAN (*Lolium italicum*): This variety is biennial but will last longer if allowed to seed itself down. It is valuable as a hay crop sown alone, or with Clovers or grain, and is also used as a cover crop sown with perennial grasses. Of the two types we offer, Yates' Extra Heavy Re-machined Italian is a heavily re-cleaned first-class strain, while Western Wolth's Italian is an early hardy and vigorous selected strain.

PERENNIAL (*Lolium perenne*): A very good winter grass for the dairy farmer in the coast and tableland districts. We offer two strains—Yates' A.Y. Old Pasture Perennial, saved in a dry climate from true perennial type pastures and very heavily re-machined, and Yates' Re-machined Perennial, which is the next best long lasting strain, and superior in this respect to a great deal of the Rye Grasses offered. A great deal of the cheap Rye Grass offered is saved in cool, moist climates, and is, therefore, quite unsuited for Australian conditions.

WIMMERA (*Lolium subulatum*): An annual species which is exceedingly hardy and drought resistant and is proving of the utmost value on the western slopes and inland districts where there is a reasonably good winter rainfall. It will provide green feed for seven to eight months of the colder part of the year, and after it dries off it is still very nutritious as the seeds remain attached to the dry straw for a long period. It is being used very extensively for sowing down wheat lands which require periodical rest from the regular crop. In districts with a good regular winter rainfall it makes an excellent pasture sown in mixture with Subterannean Clover. It is an Annual which seeds itself down each year.

COCKSFOOT (*Dactylis glomerata*)

One of the hardiest of the Perennial Grasses suitable for the coast and tableland districts of New South Wales where it is used extensively, particularly on hill country and second quality ridges.

PRAIRIE GRASS (*Bromus unioloides*)

A very valuable grass for the dairyman, it grows luxuriantly during the winter if sown on rather loose rich soils, and cows milk splendidly on it. It should be allowed to seed itself down at the end of each growing season, and if grazed heavily then allowed to come away again, it will prove almost as valuable as a crop of oats. We offer Yates' Finest Bright Re-machined which is plump seed of a very high percentage of germination and purity.

PHALARIS BULBOSA

An exceedingly valuable perennial grass which is considered by many to be superior to Rye Grass and Cocksfoot for our average tableland conditions. It is succulent, palatable and withstands hard cold conditions particularly well. Once established it is deep rooting and drought resistant and forms a splendid permanent pasture which stands hard grazing.

TALL OAT GRASS (*Avena elatior*)

This is another grass which is suitable for providing winter feed in our tablelands and districts where the finer grasses will not stand. It has a deep rooting system, is drought resistant and is considered suitable for land which is rather too light in character for other pasture grasses.

FESCUES

Of the several varieties of Fescue the one known as **Tall Fescue (*Festuca elatior*)** is most used. While it has not the feeding value of some of the finer grasses, it is extremely hardy, stands drought well, and is adapted to nearly all classes of soil. If allowed to grow too high it gets coarse but if kept fed down is quite palatable. It provides a valuable green pick when other grasses are dried up. **Chewings Fescue (*Festuca rubra* var.)** is fairly extensively used in New Zealand for sheep pasture. It is permanent and throws up a useful amount of feed in the early spring. **Meadow Fescue (*Festuca pratensis*)** is a fine perennial grass for districts where long dry spells are unusual. **Fine Leaved Fescue (*Festuca ovina tenuifolia*)** is extensively used in lawn mixtures but is not suitable for pastures.

POAS

There are two important varieties:—(a) **Kentucky Blue Grass (*Poa pratensis*)** which is suitable for tableland districts with a good rainfall where it will yield fine feed in the cool season. We strongly recommend autumn sowing only; (b) **Water Meadow Grass (*Poa aquatica*)**: This is used rather extensively on marsh lands and swamps in Gippsland; it is nutritious but rather coarse. Seed is not available but we can usually supply roots.

TEFF GRASS (*Eragrostis abyssinica*)

An annual summer growing grass after the style of Sudan Grass. In all tests in this country, it has not proved nearly as good as Sudan Grass which we regard as much more suited to Australian conditions.

ELEPHANT GRASS (*Pennisetum purpureum*)

Though not a pasture grass this is a fodder plant of considerable value. It stands cutting well and stock relish it if not allowed to get too high and coarse. It grows during the summer and if unchecked will attain a height of 12 to 15 feet. A few well established belts of this fodder should form a wonderful drought reserve. Roots only are available and should be planted in the spring.

WALLABY GRASS (*Danthonia* species)

One of the most valuable species of our Native Grasses, it grows in a wide variety of soils and climates and we strongly recommend that a small quantity be added to all mixtures.

MITCHELL GRASS (*Astrebula* species)

This is another exceedingly valuable native grass which provides a large amount of succulent herbage during the summer months. This grass is very nutritious, and extremely drought resistant. It is one of the most important grasses of the Western Plains of N.S.W. and Queensland.

OTHER GRASSES

We also stock the following, which, however, are of minor importance except for special situations or purposes:—Timothy, *Poa trivialis*, *Poa nemoralis*, Meadow Foxtail, Crested Dogtail, Yorkshire Fog, Rib Grass or Lamb's Tongue (not a member of the grass family), the *Agrostis* species, and Awnless Brome Grass (*Bromus inermis*) of which, although valuable, seed of good growth cannot be supplied at present.

Plan Out Your Autumn Sowings of CLOVERS

The Clovers are a wonderful family of plants, and supply a great need in Australian pastures, namely—Winter and Early Spring Feed. In addition, their high protein content makes them good flesh builders rather than fatteners, they make excellent hay, and are particularly valuable as soil renovators.

FARMERS, especially those in areas where a fair rainfall is experienced, are realizing more and more the great value of the Clovers as Soil-renovators, as well as fodder crops of the highest quality, either alone, in pasture, or sown with other green stuff or hay crops. Like all other legumes they have the power of gathering large quantities of nitrogen from the air and a proportion of this is left in the soil.

The addition of one or other of the Clovers when laying down pastures or sowing green stuff or hay crops, will provide a much better balanced ration to the great benefit of the stock grazing it, and when the crop is done the Clover will often give a good picking for a considerable period, afterwards being ploughed in for green manure.

Clovers succeed best in good "sweet" land and usually respond well to superphosphate.

SUBTERRANEAN CLOVER (*Trifolium subterraneum*)

This clover has jumped rapidly into prominence and has proved of tremendous usefulness. It grows for about six months during the cooler part of the year and buries the seeds just under the surface of the soil when matured. It is a prolific seed producer and the latter are readily eaten by stock, and in addition have no tendency to attach themselves to wool like the Native Trefoil. We are convinced that Subterranean Clover will play a most important part in farming practice in a great many parts of the State. We strongly recommend that sowing should be confined to the autumn.

YATES' A.Y. SUPERFINE WHITE CLOVER (*Trifolium repens*)

This is used perhaps more than any other for sowing down with pasture grasses. It spreads quickly in moist situations and is widely used in the coastal districts to provide a pick during the winter when grasses are dormant. On the tablelands its main growth is in spring and early summer. Though in dry years it will thin out considerably, the first good spring will bring enormous growth, as the seeds remain in the ground until the necessary moisture occurs. Probably the most drought resistant of the Perennial Clovers.

YATES' SUPERFINE PERENNIAL RED CLOVER OR COW GRASS (*Trifolium pratense perenne*)

An important clover which succeeds in almost any district of good rainfall. It is largely used in conjunction with cereal crops for green fodder when it provides abundant spring feed after the cereal has ripened off. In pastures it supplies excellent feed for two or three years giving for a while a much larger yield than White Clover.

ALSYKE CLOVER (*Trifolium hybridum*)

This variety combines to some extent the qualities of the Red and White Clover but is not greatly used. It will succeed in soils which are too poorly drained for good results with Red Clover.

STRAWBERRY CLOVER (*Trifolium fragiferum*)

Specially suited for low, wet, swampy land subject to floods, etc., this clover thrives where no other clovers and very few grasses would grow. It is nourishing feed and cattle thrive on it.

TRIFOLIUM INCARNATUM (Crimson Clover)

The main value of this clover is as a rotation crop in cattle and dairying districts; its feeding value is somewhat diminished by its hairiness. It is an annual only and does not seed itself down.

BOKHARA CLOVER (*Melilotus alba*)

The main commercial use of this clover is for renovating land, green manuring, etc. It has a vigorous deep root system which opens up the subsoil and provides humus after the plant is ploughed in at the end of the second year before seeding takes place; it is a biennial. Bokhara has a high fodder value, but is likely to taint milk at times, also the flour if it gets into wheat paddocks.

BERSEEM (or Egyptian) CLOVER (*Trifolium alexandrinum*)

An annual clover suited for the more temperate districts where it gives magnificent feed through the winter and spring, but it **must** be sown in the early autumn, as it only grows during the cooler months. For fuller particulars see Catalogue of Farm Seeds for Autumn Planting.

BURR or "NATIVE" TREFOIL (*Medicago denticulata*)

Although not indigenous to Australia, this clover has become so widespread that it has earned the title of "native." It furnishes very large quantities of feed during the cooler months of the year, while after it dies off, the seed forms a valuable concentrated food which sheep will readily pick up. The burrs on the seeds however are a great disadvantage in wool.

BURRLESS or BUTTON TREFOIL (*Medicago orbicularis*)

In a few of the northern districts of New South Wales this clover is popular. It is similar in appearance to our "Native" Trefoil, but has the distinct advantage that the seed is not enclosed in a hooked burr. The plant, however, is not nearly as hardy nor prolific as the latter.

Other Clovers

Other clovers we stock but for which there is only a small enquiry are English Trefoil (*Medicago lupulina*), Lotus (varieties).

WILL IT GROW LUCERNE?

It is seldom safe for a farmer to say that lucerne will not grow profitably on his land before he has tried it. It is usually associated with rich alluvial soils, but while the best results are obtained from such land, it also thrives on a wide range of soils that do not possess the depth or fertility of the rich alluvials. It is sensitive in certain respects, and disregard of its special susceptibilities will result in reduced yields, but payable results may be expected from almost any land, except that which is badly drained or is very sandy. The plant roots very deeply, and it is obvious that a deep, permeable subsoil contributes to maximum results; but this is not an absolute essential to successful growth, as is proved by the results obtained on soil that at one time would have been considered quite unsuitable.

LUCERNE ON THE COAST

Green Fodder for Milking Cows

"Although lucerne is fairly extensively grown in coastal districts, dairy farmers should endeavour to grow larger areas, as this crop is undoubtedly the most satisfactory hay, green fodder, and grazing proposition available. Once established it lasts for a number of years, and although the initial expenditure for seed and preparation of the land is somewhat high, the value of the feed produced during the first two years of the crop's growth more than covers these costs. Lucerne as green feed or hay is excellent fodder for dairy stock. Being a legume, it is rich in protein, an ingredient that is required in large quantities by milking cows in high production. On most dairy farms there is often a shortage of succulent green feed during winter months, and cows

respond well if judiciously grazed for a brief period each day on the winter growth of lucerne. At the end of the winter, the fields should be worked with a springtooth cultivator fitted with special lucerne points, to break up any crust formed on the surface soil; a top-dressing 2 cwt. of superphosphate per acre should also be applied at this period."—From Agricultural Gazette, November, 1927.

If normal spring and summer rains may be expected and you have fairly well prepared, clean land, there should be no difficulty in getting a good strike of lucerne in the spring. Lucerne sown this spring will ordinarily be sufficiently established by next winter to yield tremendous quantities of rich, nourishing green fodder, which will undoubtedly help you maintain the herd in full milk.



Dept. of Agric. Photos.

LUCERNE ON THE INLAND FARM

The photographs above illustrate very vividly what has already been done in one district, and can be done on tens of thousands of acres of similar country. On the left is shown typical river flats such as occur for many miles along the Lachlan, Murrumbidgee and tributary rivers, growing an almost impenetrable mass of cabbage (or variegated) thistle. These thistles are only valuable for stock food when in the matured ripened stage before they dry out and their vigorous growth swamps out all summer growing plants which should have become established in

the spring. Thus these flats carry comparatively little feed during the summer when it is most needed. On the right is shown the tremendous productive power of this land when laid down with lucerne. On most of the inland river flats water is obtainable at comparatively shallow depths, and the Lucerne plant being naturally deep rooting, finds its way down to underground supplies of moisture after being established a few years, thus becoming practically drought proof.

**YATES' BROADLEAF
AY LUCERNE
GIANT-UPRIGHT**

**YATES' BROADLEAF
AY LUCERNE
GIANT-UPRIGHT**

in sealed bags is re-machined and tested seed of extra prime quality of a superior type of N.S.W. grown Lucerne, which is sown on selected farms in those districts in which, owing to special natural conditions, there has been evolved a long-standing drought resisting strain, which has proved itself for Australian conditions. Supplied in 25 lbs. and 50 lbs. net SEALED bags.

For Nutritious Greenstuff

—Soil Renovation

—Green Manure

GROW LEGUMES

While all these crops are of very great value as feedstuffs in some form or other, they have the additional advantage of being the best of "Soil Renovators", and of maintaining and increasing the fertility of the soil. Their value for rotation, and also for green manure, can hardly be over-estimated.

SOY BEANS

Whereas the value of Cow Peas are well known and appreciated by most mixed farmers, owing to climatic conditions their general use is confined to the coastal parts of Northern New South Wales and Queensland. Soy Beans, while giving much the same sort of crop, do well under a much wider range of climatic conditions, and will thus, when better known and understood, be used to a very large extent.

The wider use of Soy Beans will enable the farmer to have a summer growing legume crop which will give a hay of the feeding value of lucerne and clover if grown alone, or they can be used to bring up the feeding value of the more generally used summer crops by planting a small proportion with the other seed; the farmer will thus get the wonderful feed value of the legume in summer as well as winter. When trying Soy Beans for the first time, too much reliance should not be placed on the results of the first crop, as owing to the special soil bacteria necessary for their best growth, the following crops are nearly always very much more vigorous than the first. Sow the seed about three to the foot in shallow drills two and a-half feet apart after danger of frost is over.

We can supply the following varieties:—

MAMMOTH YELLOW—An old standard variety. One of the best for hay or seed. Very vigorous, growing over 3 feet, and thus gives a very large bulk of feed. It is medium late maturing.

LAREDO—A medium late maturing variety giving exceptionally heavy bulk of feed. Laredo has slender branches and thus gives very good quality hay. In America this variety is largely replacing the Cow Pea, and we would strongly recommend it for trial on the coast of Northern New South Wales and Queensland.

BILOXI—An upright variety, growing 4 to 5 feet high, covered with dense foliage, which does not shed easily. Gives a very heavy yield of beans and is therefore an excellent variety for growing for pigs. It is a very late maturing sort and needs a long season to make its full growth.

TARHEEL BLACK—A little earlier than Mammoth Yellow. This variety is tall growing and of upright growth. Branches well close to the ground.

Wilson's Early Black—A prolific early combination hay and seed variety. It has fine stems, which enable it to cure quickly for hay.

Ito San—A new variety which promises well. Habit is bushy, erect and vigorous.

VELVET BEANS

A valuable plant for moist warm climates, such as the North Coast of New South Wales and the Coastal districts of Queensland.

When conditions are suitable, it is the rankest grower and heaviest yielder of any of the legumes. As a soil renovator it is excellent, but it will be valued even more for the magnificent grazing it affords and for the high feed value of the Beans. It is also recommended as a very suitable crop to sow with maize, either for grazing or for ensilage, in this case the Beans should be sown about a month later than the maize. With this method the vines are supported by the maize stalks, and an enormous amount of fodder is obtained. If sown alone, plant in rows four feet apart and about 18 inches between the seeds, or two or three seeds in hills four feet apart in rows five feet apart.

We have supplies of the following:—

90 DAY SPECKLED—One of the earliest sorts and therefore suitable for the lower coastal districts, especially for forage and soil improvement.

OSCEOLA—Another early sort with large pods and very vigorous. Comparatively free of furze on the pods.

BUNCH—Of less vining habit than the other varieties and rather later. A good sort for growing with maize.



On the Right—Biloxi Soy Beans growing well at Grafton.
Note the tremendous weight of crop.

LEGUME CROPS—Continued



Dept. of Agric. Photo.
Velvet Beans are tremendous yielders and the food value of the beans is extremely high.

COW PEAS

Cow Peas form perhaps the most valuable crop for green soiling that we have for the coastal and warm parts of this country. They are extensively used for this purpose in the sugar fields of Queensland, and will doubtless form the main legume for the crop rotation now being found so necessary in connection with maize growing, especially on our North Coast. Cow Peas make excellent pasture, fine hay and splendid ensilage (especially in conjunction with other green crops), and as well as all this do more than almost any other crop to improve the soil. The Cow Pea is an annual, making its whole growth during the summer months. In general appearance, habit of growth and character, and composition of seeds, it resembles fairly closely the ordinary Kidney Bean. We urge farmers to consider the advantages of sowing Cow Peas with Maize, Sorghums and Millets, either for green fodder or ensilage. Not only will the combined crop make a better balanced ration, but the total yield will be increased and also the condition of the land improved. Sow in spring after frost is over in drills 3 feet apart and drop peas at intervals of 9 to 12 inches in the drills. Sown in this manner, 10 lbs. of seed should well cover an acre, broadcast $\frac{1}{2}$ to 1 bus. of seed is required. Supplies of Cow Peas, owing to difficulty of harvesting, are always uncertain, and prices vary considerably. We expect to have the Black Seeded and the Clay Coloured.

ANNUAL BLUE LUPINS

For green manuring these provide one of the best crops for ploughing in, especially in our cooler districts. When practicable we recommend autumn sowing, but they will succeed if sown in early spring. Lupins grow very rapidly and produce an immense amount of top. Sow at the rate of 2 bushels per acre. For small trials 3 lbs. will sow an area of 100 square yards (10 yds. x 10 yds.).

MAURITIUS BEANS

An excellent green manuring crop largely grown in the sugar cane districts.

PEANUTS

As well as being in great demand for human consumption, the Peanut is being increasingly used as a stock fodder, especially for pigs. This crop may be successfully grown in any except the coldest parts of the State. The plant grows usually from 12 to 18 inches high, and has the peculiar habit of maturing its seed in the ground. They require a rich sweet soil, which should be well worked to a depth of four to six inches, but kept firm and solid under that depth; this keeps the nuts near the top and so facilitates harvesting. Sow 30 to 40 lbs. of nuts, or say 10 lbs. shelled seed per acre. When ripe, lift the plants and harvest the nuts, which are produced below the ground. The Peanut plant may be grazed, the top made into hay, or used as a soil renovator; and is valuable as a dry farming crop. We usually have in stock supplies of tested growth of the Red Spanish and White Spanish varieties. Customers are asked to state their preference when ordering. Both these are of the small podded type and are very popular in the main growing districts. On account of the upright bushy growth it is necessary to throw a little earth on the centre of each plant to induce the vines to penetrate the soil. This greatly increases the yield.



Dept. of Agric. Photo.
Cow Peas growing in a Citrus Orchard

CROPS FOR PIGS

Legumes Recommended

Although it was once thought that pigs were not adapted for grazing, in actual practice it is found they thrive on almost all green crops, especially if a proportion of grain is fed at the same time.

Of these Lucerne is the most valuable, but where an annual crop only is needed, leguminous crops such as Clovers, all types of Peas and Beans, Tares, etc., are strongly recommended.

All these crops have a high protein content which is essential in a ration for pigs because they are such quick growers. When little or no milk is available, these foods are of the greatest value in providing a balanced ration.

Grains and other carbo-hydrates are necessary when pigs are largely fed on green crops, especially when they do their own harvesting. In many districts also feeding maize grain has given excellent results in this way.

LEGUME CROPS—Continued

FIELD PEAS

This is a crop which we consider does not receive the attention it deserves. It is an excellent fodder for sheep, pigs and other stock, but we think its main value is when grown as a combined "Legume-cereal crop." For this purpose Field Peas are excellent sown with oats or wheat. If sown early with oats they can be grazed off once or twice during the winter and then let go dry for hay. The addition of the pea straw to the oaten hay makes a much more balanced ration and is very palatable to stock.

If sown alone they may be grown for topping off to maturity and when cut fed to pigs, or they may be cut green, just after flowering, for cattle or pig feed.

This crop is classed among the best of the soil improving crops. Even if only the roots are ploughed in, it helps to maintain the fertility of the soil.

Field Peas, though not so hardy as Tares or Vetches, are earlier maturing, usually cheaper in price, and one grower reports that when grown with a cereal it will stand the trampling of grazing cattle better than will tares under similar conditions. Field Peas can be sown in the autumn or spring, but in mild districts we prefer autumn sowing.

Sown alone $1\frac{1}{2}$ to 2 bushels per acre broadcast, or say, 30 lbs. in drills 2 feet apart, is sufficient.

Sown with cereal crop try $\frac{3}{4}$ bushel Field Peas with $1\frac{1}{2}$ bushels oats or wheat per acre.

We usually stock the Grey, Blue, and Dun varieties of Field Pea, the Grey and the Dun being perhaps the most popular.



Dept. of Agric. Photo
A beautiful crop of Dun Field Peas in the Macleay River District.

KUDZU VINE

(PUERARIA THUNBERGIANA).

We have had several enquiries for this. It is a perennial legume best adapted for poor soils near the coast. We can only supply in packets, and recommend that the seeds be sown in a good patch. The plants will quickly grow and send out long runners which root at every joint. These can then be severed and transplanted, and the required area thus quickly covered. Packets, 6d.

SOWING RAPE

Sowing Rape is one of the most profitable stock fodders for fattening. In addition it is a very useful rotation crop and soil renovator on account of its vigorous, deep rooting habit, which penetrates subsoils to a considerable depth.

RAPE is the great fodder plant for sheep husbandry in Australia, and with the widespread recognition of the value of combining sheep and wheat, Rape is now becoming a very important crop on the wheat farm, not only for sheep feed, but also a rotation crop and for renovating wheat land. The cost of the seed is so little, and the cultivation so simple, that it cannot fail to be much more largely used.

If paddocks, which are showing signs of exhaustion under wheat, are ploughed and a crop of Rape sown, say early in March, it will give an enormous quantity of sheep feed during the winter and following spring, which will fatten ten or twelve sheep to the acre for some months. If, during the following summer, the remains of the crop and sheep droppings are ploughed in, the land will be very much enriched, and when sown with wheat again, a greatly increased yield will result. It is easy to see how profitable it is to utilise the land in this way. Even if owing to unfavourable seasons, the crop of Rape comes to nothing, there is very little lost as the cost of seed is so little. Rape is equally good for pig feeding or even cattle, so long as it is not given in quantity to milking cows, as it is apt to taste the milk.

Sheep put on to Rape fatten very quickly; even old broken mouthed ewes, that would starve on an ordinary pasture, very soon put on flesh, and are fit for the butcher. They should, however, be sent to market as soon as they are "topped off," as if put back on to grass they very soon lose condition again.

Poultry farmers are finding a small patch of Rape a valuable asset, and for this purpose small suc-

cessional sowings should be made through the autumn and again in the spring.

Some growers prefer to sow it with Rye Corn, say half-bushel of Rye and two pounds of Rape; others sow it with Mustard, using half-a-pound with four pounds of Rape per acre. The inclusion of Mustard corrects the tendency of Rape sometimes to scour.

We recommend sowing in February, March or April, after the good autumn rains, but as early as possible after the middle of February. It is extremely hardy and can also be sown with advantage in the early spring, especially in the cooler districts. The land should be deeply ploughed and well worked, but if sown on stubble land, it would be enough on light soils to stir thoroughly the surface with a disc harrow; but ploughing and harrowing would be much better still. Sow three pounds per acre in drills, or four to six pounds broadcast (if drilled, so much the better). Where a machine is not available it may be sown broadcast by mixing with several times its bulk of dry soil, which will materially help to distribute the seed evenly. We do not recommend that Rape should be sown on poor hungry land, as it will not succeed; it requires good soil and deep cultivation, and will well repay the labor expended in preparing the land thoroughly.

As there are several varieties of Rape, some very much better and yielding larger crops than others, also as many of the cheapest samples are tainted with wild mustard or yellow weed, we would strongly advise growers to buy our re-cleaned seed, and note that each bag is sealed and branded.

As a Follow-On after the Spring "Flush"

USE MILLETS

As a catch crop to augment the natural grazing many farmers require a quick-growing fodder to give a "green pick" when the pastures are ripened and dry. The need is for something that will require little labour in cultivation or harvesting. Some of the MILLETS are eminently suited for this purpose. They will grow well on even mediocre land, and several of the varieties stand grazing very satisfactorily, and shoot again and again. As a "follow-on" for milking cows and growing lambs after the spring grass has commenced to dry the several varieties of MILLETS specially indicated are excellent. Sow broadcast or through an ordinary grain drill set for suitable depth as mentioned below.



MILLET varieties under test on our trial grounds. Note the tremendous growth.

Japanese Millet

For grazing purposes or green fodder gives the earliest growth. This variety is of upright growth, and stools out very well. It grows up to 3ft. 6in. or more high, and "comes again" very quickly after being fed off or cut; also makes excellent hay. This sort will stand a dry weather pinch much better than any of the other varieties, and is by far the best for feeding off.

Hungarian Millet

Another very valuable summer green crop. Sown in the spring or early summer it will give a wonderfully heavy crop of hay or ensilage. For hay purposes the Hungarian Millet is much superior to other varieties. It is a quick grower; in fact, in suitable situations, if the seed is sown in September, it will mature early enough to obtain a second crop of hay off the same land. Twelve pounds of seed per acre in drills, or 20 pounds broadcast, is a fair sowing. When in bloom it should be cut and treated as other hay.

Broom Millet

The grain is an excellent fowl feed, but the great value of this variety is for broom making. We stock the best Hunter River grown long hurl variety. To those interested, we can supply detailed instructions about growing this crop.

White French

Is smoother and of slightly more succulent foliage, and grows up a little higher, but does not stool quite so well. This Millet also recovers very quickly after feeding off or cutting.

Pearl Millet

This is a very tall growing variety, suitable for hay making. If sown in rows and intercultivated it will attain a height of 8 to 10 feet. It has slender stalks and slender long bladed leaves, making it very suitable for hay, and should be cut while young and tender. Sow 8 to 10 lbs. per acre in drills, or up to 20 lbs. broadcast.

BUSHEL WEIGHTS

We show herewith the weights per bushel as standardised under the N.S.W. Weights and Measures Act. Many of the lines mentioned (such as Clovers and some of the Grasses) are not usually priced or sold by the bushel, but in all cases where customers order bushel weights we will reckon the number of pounds to the bushel as stated herewith.

	Lbs. per Bush.		Lbs. per Bush.
BEANS	60	HUNGARIAN	
BARLEY	50	MILLET	60
BROOM MILLET	50	LUCERNE	20
BUCKWHEAT	50	MAIZE	56
CLOVER:		OATS	40
Red or White	20	PEAS	60
GRASSES:		RYE CORN	60
Couch	} 20	SORGHUM	60
Cocksfoot		TARES or	
Paspalum		VETCHES	60
Rib and Rye		WHEAT (Seed)	60

SUDAN

A SUMMER FODDER CROP FOR DRY AREAS

Coming from Northern Africa, this grass has inherited a resistance to drought which even exceeds that of many of our native grasses. Mr. E. Breakwell, in his book, "Grasses and Fodder Plants," says: "It may be said to be the most drought-resistant grass yet grown in the western districts . . . Even on a dry seed-bed the seed will germinate and produce healthy seedlings on fifty points of rain." It is a persistently heavy cropper, with a high feeding value, and one of the very best hay crops.

AS a summer crop Sudan Grass has come into striking prominence during the past few years. We believe that this grass is destined to take a very high place among our summer fodder crops. Though not so heavy a yielder in its primary growth as some of the Millets, after the first crop is taken off, Sudan Grass stools quickly and comes again and again in a miraculous manner. The rapidity of growth and weight of crop of the second, third, fourth, and in some cases fifth cuts surpasses anything else among the summer fodders. The correct stage at which to cut Sudan Grass for hay or chaff is when the crop is flowering and before the seed has formed.

Sudan Grass requires a good seed bed and a certain amount of moisture in the soil to germinate quickly and evenly, but, once established, it has proved itself to be of great drought resistance, in fact, it can be accepted that Sudan and Grain Sorghum are the only summer fodder crops that will give consistently good results in the western districts of N.S.W. Its palatability, green, or in the form of hay, is indicated by the greedy manner in which all classes of stock eat Sudan Grass. Its fodder value, tested under chemical analysis, is stated to compare most favourably with wheaten or lucerne hay. Sudan Grass stands grazing extremely well, and it is probably the most valuable of the summer-growing fodder crops for this purpose.



Illustrating the value of Sudan Grass as a Summer Fodder in the Western Districts.
Crop growing on typical wheat country on the Western slopes.

GRASS

A member of the Sorghum family, Sudan Grass is an annual and must be sown down each year. It is most sensitive to frosts, and should not be sown until all danger of such is over, and then as early as possible so as to ensure a good growth and a strong stand by midsummer. Prepare the land as in the cultivation of wheat or sorghum. Sow either in drills or broadcast. If in drills, about eighteen inches to two feet apart, sow 6 lb. to 8 lb. to the acre. This allows of cultivation between the young plants, assisting materially in helping on the young growth by conserving the moisture and checking the weeds. For the man sowing a large area, probably the most practical method of sowing this crop would be through the ordinary grain drill at 8 lbs. to 12 lbs. per acre, or failing that, broadcast at the rate of 12 lbs. to 16 lbs. per acre. Its value as a grazing crop is very high, but will be enhanced by growing with Cow Peas or Soy Beans where the climatic conditions permit.

As will be readily understood in such a quick growing and vigorous plant, Sudan Grass responds very noticeably to fertilizers. An application of from 1 cwt. to 2 cwt. of superphosphate with the seed is strongly recommended.



Harvesting Sudan Grass for Silage

Sudan Grass in the West Practical Results

The usefulness of Sudan Grass as a summer growing crop for the drier districts of New South Wales, where rain in the summer may be expected, has been amply proved at Nyngan. In five years' continuous cropping only one failure occurred, and this was due to excessive hot dry winds just as the seed was germinating. Sowing through every grain run in an ordinary wheat drill has proved superior to wider spacing between the rows; yields are heavier, the crop has finer stems, and weeds are choked out.

An unusual use to which this grass is put is to scatter the seeds when ploughing in rabbit burrows, the ensuing growth being superior to the natural herbage. In addition it has been noted that rabbits do not attempt to re-open the burrows where the grass has obtained a good hold, whereas on areas where the grass was not sown, the burrows were again opened up.

Sudan Grass is not a Pasture Grass

Although Sudan Grass is such a wonderful crop for summer feeding, it should not be confused with the class of plants known as Pasture Grasses, which are either perennials, or annuals which seed themselves down every year.

Sudan Grass does not seed itself down in the ordinary sense of the term, although it produces enormous quantities of seed in favourable seasons.

As a feeding-off crop Sudan Grass is characterised by extremely high palatability and nutritive qualities, and the amount of stooling is considerably increased by grazing. It will carry two sheep to the acre on the slopes and tablelands without irrigating, while both sheep and dairy cattle are extremely fond of it.

A Word on "Stock Poisoning"

LITTLE RISK WITH SUDAN WHEN RELIABLE SEED IS USED

There is much misconception about poisoning of stock by Sudan Grass, and we feel that a little space allowed here for a brief statement of the facts will be well used.

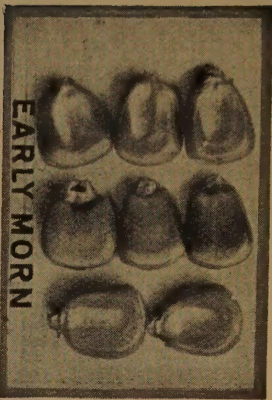
In tests carried out by the Department of Agriculture over a series of years, using a pure strain of seed, no trouble from poisoning has ever occurred. This in itself would show that the risk, if any, is infinitesimal when using a pure strain.

But Sudan Grass is very closely related to the Sorghums and will readily cross with them if grown nearby, forming a hybrid, which is quite distinct from ordinary Sudan Grass, and shows broader leaves, coarser stems, more bunched seed heads, and more vigorous growth. These hybrids are usually easy to see growing in the crop, and, if present, should be rooted out. Sweet Sorghums are definitely known to be poisonous under certain circumstances, and so it is not hard to understand that a hybrid would probably show the same tendency.

Although we cannot and do not guarantee that the Seed we offer is free from hybrid strains, we wish our customers to know, that realising as we do the importance of this matter, we take the greatest care in the selection and examination of our samples, besides making exhaustive enquiries about the origin and place of growth, and furthermore, every sample is passed by the Department of Agriculture as free of injurious Sorghum Hybrids.

Finally, in considering the advantages and disadvantages of Sudan Grass as a fodder, we would suggest that the slight risk involved is far outweighed by the great economic value of, and the big returns so easily obtained from, this wonderful summer fodder crop.

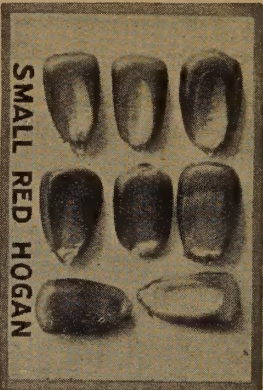
Order early—sow as soon as frosts are
over, to get a long growing season.
FOR PRICES, SEE CURRENT LIST
POST FREE.



EARLY MORN



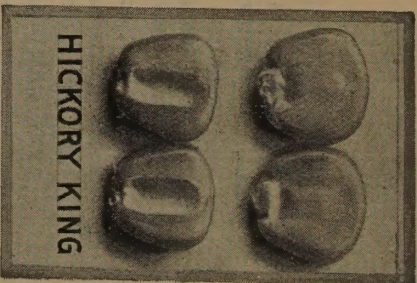
EARLY LEAMING



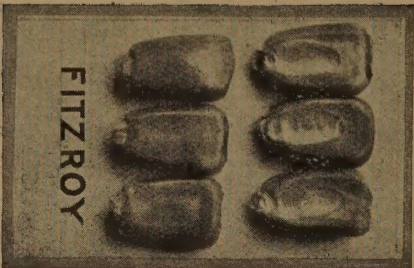
SMALL RED HOGAN



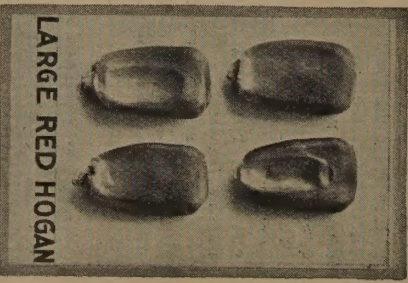
WELLNGROVE



HICKORY KING



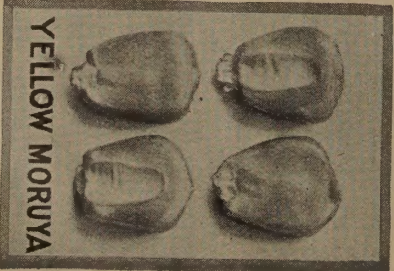
FITZROY



LARGE RED HOGAN



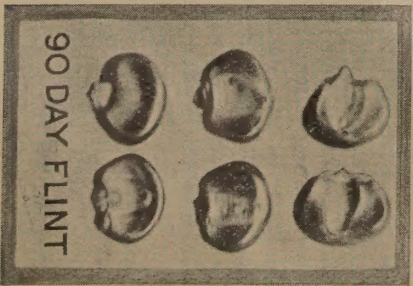
SILVERMINE



YELLOW MORUYA



GOLDEN GLOW



90 DAY FLINT

SELECTED AND SPECIALLY RE-GRADED SAMPLES OF SEED MAIZE

MAIZE is a summer crop of the utmost importance in all districts where a reasonable fall of summer rains can be counted on. Even where the summers are usually on the dry side, Maize can be successfully grown if sown in drills and carefully and regularly cultivated. In cool districts where Maize will not ripen, it is still a most valuable green fodder for early autumn use. We strongly recommend sowings in drills, even when only needed for green fodder or ensilage.

The extra weight of crop from a paddock of Green Maize sown in drills and cultivated will more than repay the extra cost of labour. Should the season turn dry a fair yield would result from cultivated Maize, whereas the broadcasted crop might be a failure.

By sowing the early maturing varieties it is possible to harvest a crop of grain in districts where the later maturing sort will not ripen. The best time for sowing Maizes varies somewhat in the different districts. For green crop or ensilage, Maize can usually be sown a month or so later than would be necessary for a grain crop.

VARIETIES:

EARLY MORN—An exceptionally early yellow variety with a good but small grain. It is specially recommended for very cold districts and for very hot, dry districts where early maturity is essential. It is also very useful in the Maize growing districts for land which is wanted for autumn use, as owing to its exceptional earliness it can be harvested in plenty of time to work the land for autumn crops. In practice it is found that owing to its small growth it can be planted much closer than usual. A very good yield per acre is obtained by spacing the rows 30 inches apart and planting the seed every 18 inches in the row.

GOLDEN GLOW—Although not yet widely known, this Maize has made good on the table lands, and will, we think, in time displace some of the varieties now being grown in those districts.

It is extremely early, grows only a short stalk, and on appearance seems to be essentially a grain variety. Under quick-growing conditions it would mature in about four months, but takes a few weeks longer in the cold climates, for which it is apparently best suited.

NINETY DAY—An early flint. A good early green crop variety.

SILVERMINE—The earliest white grain, deep and solid, excellent for early green fodder. Very hardy and drought-resistant, also gives good yield of grain.

SMALL RED HOGAN—A fine early green crop variety.

FUNKS EARLY YELLOW DENT—One of the earliest of the Dent varieties, especially recommended for the Tablelands and slopes. Very hardy and drought-resistant. A very good variety for a grain crop, has a fine grain.

SMALL LEAMING—A very popular variety on the North Coast, gives a fine early green crop. We usually have the red grained sort and may have the yellow.

WELLNGROVE (or Early Yellow Dent)—Medium season, heavy cropping. Dent variety, giving medium size crop of fairly thick moderately broad grain. Is used to a fair extent on the tablelands and is also suitable for the Western Slopes.

FITZROY (or Improved Yellow Dent)—A variety which is becoming extremely popular both as a good yielder of grain and for green fodder and silage. Grain is moderately thick, broad and deep, and a bright colour, which makes it very attractive.

HICKORY KING—A very popular main crop white variety. Very broad grain, is exceedingly good for green fodder, specially for the highlands, as the variety suckers freely.

GIANT WHITE—Excellent main crop. Grain large, deep and solid. Splendid green fodder.

MANNING WHITE—Very similar to Giant White, and has gained great popularity in certain parts of the North Coast of New South Wales.

As the majority of our customers will require Seed Maize for green crop, we would advise them not to overlook the White Grained varieties, as generally, besides yielding a heavier grain crop than the yellow sorts of the same class, they are all exceptionally good, green crop Maizes, producing a heavy leafy succulent growth.

Sow 8 to 12 lbs. per acre in drills, or one bushel to one-and-a-half bushels if broadcasted. Although the prices of Yates' Selected and Specially Re-graded Seed will be found slightly higher than ordinary uncleaned samples, in view of the really small quantity of seed required per acre this should not be considered, and farmers in their own interests should not begrudge the small extra cost of graded samples.

All our Seed Maize is specially treated in our seed cleaning plant, and while we cannot eliminate the whole of the inferior and discoloured grain, we do remove a very large proportion, thereby greatly improving the appearance and germination of the samples, and, as a result, our seed is noted for its quick and even growth.

VARIETIES:

YELLOW MORUYA—A very large grained, late maturing variety which is very popular on the lower South Coast.

LARGE RED HOGAN—Late maturing variety, very popular in districts with long season. In favourable seasons it gives a very tall growth, but as the stalk is stout it resists wind well. Grain is fairly thick, broad and deep.

YELLOW HOGAN—A late variety which has been very successful on the Macleay River, N.S.W. The grain of this variety is exceedingly heavy.

YELLOW HAWKESBURY—Deep, broad grain, splendid in warm districts; heavy cropper.

At time of going to press, supplies of some varieties are not yet assured. See current Price List before ordering.

LEGUMES IN MAIZE—A Supplementary Crop

In some parts of this State it is a common practice to turn sheep or lambs into the Maize crop at the cobbing stage when quite a lot of useful feed such as the lower leaves of the Maize plant and weed growth which has sprung up since the last cultivation, is available. In such cases it would seem an excellent plan to sow some Soy Beans at the same time as the Maize in the same rows, in order to provide some better, more nutritious and balanced feed. This procedure is specially recommended for districts where somewhat thin stands of Maize are usually obtained. Soy Beans do not grow again after grazing so should always be sown early in a Maize crop in order to make the best possible growth.

In certain districts also Cow Peas are regularly sown at the last cultivation of an early sown Maize crop. The main purpose is for green manuring or for ploughing in when stock have grazed on the land after harvest.

MAIZES V. SORGHUM for Green Fodder

From a purely feeding standpoint Maize and Sorghum possess many merits in common, both being palatable green fodders of high carbohydrate contents. Feeding of either of these crops alone, however, does not give permanent satisfactory results, as both are proportionately low in proteins. To obtain satisfactory results it is necessary that some other crop rich in protein or some concentrated food be fed in addition, so forming a balanced ration.

As a general rule there is little to choose between these two crops. Maize on the average outyields Sorghums in good seasons, but Sorghums are more consistent yielders and will withstand dry conditions much better, recovering and making new growth much sooner than Maize.

SORGHUMS

IN districts where rainfall is a little too low for maize, sorghums have their particular value. They have wonderful adaptability to different soils and climates, and will produce big yields of splendid fodder where maize would fail, and, in addition, the feed value of the grain is almost equal to that of maize.

The early varieties grow quickly, even on poor land and under droughty conditions, and give green feed when most other things are withering. The late sorts grow under similar conditions, and stand well into the winter—even when the flag is frosted the stalks retain their succulence and sweetness—and provide a very palatable and fattening fodder when it is most acceptable.

Many farmers are reluctant to grow Sorghum for fear of poisoning their stock, but Sorghums are too valuable to exclude, and if the following is noted, they can be fed to stock with perfect safety. Firstly it has its best feeding value when the seeds are just hardening, and at this stage of growth there is no danger of poisoning unless frosted or stunted. Most cases of poisoning occur when the plants are half grown and checked by frost or dry weather. The certain method, however, of avoiding trouble is to cut the crop and allow it to wilt for some hours before feeding.

For ensilage, experience shows that Sorghum should be fairly mature before cutting. The stalks may look rather dry, but Sorghums should not be

cut for silage until the seeds are hard. If cut too early the silage is apt to be acrid and inferior to that cut at the right time.

The earliest sowing of Sorghums should be made directly the frosts are over, and the second crop may be planted up to the end of January, November and December being the best months.

In rich, moist land, and where fineness is desired, up to 50 lbs. can be sown broadcast per acre, but in ordinary situations 30 lbs. is ample; it is a good method in such land to sow in drills 3 feet apart, and keep the land between the rows cultivated. In drills, about 10 lbs. per acre is sufficient. Prices vary with the market.

Varieties

EARLY AMBER CANE—The earliest and the best variety to withstand droughty conditions. Largely used on irrigation areas, as less water is required to bring it to maturity.

SUMAC—This is a fairly sweet variety and a very vigorous grower. It is proving a good sort.

PLANTER'S FRIEND—For late crop, as it stands cold weather and retains its sweetness and feeding qualities even after the seed is matured.

SACCALINE — Exceptionally rich in sugar, it is very palatable and fattening to all classes of stock, while its succulence and freedom from "pithiness" after standing through severe winter is most marked.

One of the very valuable habits of Saccaline is its persistent ratooning or throwing up of new growth from the roots when the matured stalks have been cut. It has in several instances stood through the winter, and then when all cut thrown up a fresh crop of fine stalks the following spring, and grown well through the second summer.

COLLIER—A very fine variety, juicy and sweet. One which stands well into the winter; is a clean grower, and has shown a decided resistance to red stain or rust. Its green fodder yield is very heavy and in recent tests on the North Coast it regularly outstripped all other varieties.



Dept. of Agric. Photo.
An exceptionally fine crop of Saccaline in the Nowra (South Coast) District.

FOR PRICES SEE CURRENT PRICE LIST—POST FREE

SORGHUMS—Continued

No. 61—Very similar to, and will doubtless be a rival to Saccaline. It is a sweet, succulent, heavy yielder, and is disease-resistant. Matures slightly earlier than Saccaline, but is more frost-resistant and stands longer into the winter months.

WHITE AFRICAN—Each year this variety becomes more popular. It is a heavy yielder and retains its sweet juicy succulence longer than Saccaline. It is disease-resistant and produces strong cones which do not readily lodge. White African is a late variety, should be planted early and requires a long growing season.

SORGHUM, SACCHARATUM or BLACK SORGHUM—Good strains of this variety are not now available, as it has gone out of favour to a large extent, and has been replaced by newer sorts. We do not now carry stocks.

GRAIN SORGHUMS

In districts where the average rainfall is too limited for the regular growing of Maize, Grain Sorghum is worthy of inclusion in all crop rotations. It has these characteristics:—(1) It will thrive on a lower rainfall than Maize. (2) The grain has a feeding value nearly as great as Maize. (3) The weight of grain produced is good, under fair conditions up to 40 or even 50 bushels per acre may be obtained. (4) It will succeed in soils too poor for Maize. (5) It can be used for fodder or for ensilage when the seed is in the "dough" stage. (6) Even when the seed has been harvested the foliage and upper stems are of value for the stock as roughage. (7) Unlike other Sorghums it is non-saccharine.

Varieties

Feterita—The most valuable and most used variety for average inland conditions, where it is splendid for tiding over dry spells. Both the stems and heads have the capacity to hold on remarkably well until favourable conditions arise for the grain to form and mature, which it does very quickly.

Kaoliang—This is the quickest growing of the Grain Sorghums, and also the most drought resistant. It has thin, pithy stems and the foliage is sparse.

Milo—This is generally the last of these Sorghums actually to set its seed. Where there is enough moisture to form seed, its yields are high. It will produce a considerable quantity of green fodder, up to four tons per acre without irrigation.

Kafir—A much slower growing variety than the others, and is noticeable because of its much more leafy and succulent growth. The plant itself is fairly drought resistant and will retain its succulence through dry spells, but under very adverse dry conditions it will hardly set seed at all.



Mangolds, Sugar Beet, Field Carrots

MANGOLDS & SUGAR BEET

Wonderful milk producers, and yield immense crops. Sow about September-October; in warm climates an autumn sowing will give a fine crop. Plant in well worked clean land, in drills 30 inches apart, to allow horse cultivator to work and when up hoe to remove any growth of weeds, and if necessary thin out to allow the roots to develop. Five pounds per acre of Mangolds and about eight pounds per acre of Sugar Beet are fair sowings.

YATES' MAMMOTH LONG RED—A very select stock. The roots are of excellent quality, clean, smooth and free from fangs; flesh close grained and full of saccharine. The heaviest cropping Mangold grown.

YATES' CHAMPION YELLOW GLOBE—A very select stock, small top; flesh close in texture, excellent feeding quality.

GOLDEN TANKARD—An excellent keeper. The roots medium size, with deep yellow flesh, and contain high percentage of saccharine.

LONG YELLOW—An excellent variety, very heavy cropper.

SUGAR BEET WANZLEBEN—Half long white roots, sweet and crisp.

GIANT HALF-SUGAR MANGOLD—We keep the two varieties, White and Rose. They are sweeter than the ordinary Mangold and larger than Sugar Beet, combining the quality of the Beet with the weight of crop of the Mangold. Tested against Sugar Beet it yielded twice the crop. Intermediate in size, averaging about one foot in length.

FIELD CARROT

Valuable for all classes of stock, particularly horses. Sow any time in spring or early summer, when the weather is favourable, at the rate of four pounds per acre in drills 30 inches apart for horse work or closer if for hand work.

WHITE BELGIAN—Grows well out of the ground, so it can easily be pulled by hand.

ORANGE GIANT—A rich orange red variety, very handsome and smooth, producing large crops.

YATES' HAND-PICKED SEED POTATOES



1928 CROP REPORT

On the whole the growing season has been a favourable one and our supplies this year are of splendid quality, clean and of good seed size. Every bag of potatoes is put over our sorting tables and outsized and defective or diseased tubers hand-picked out. It should be remembered that the cleanness and freedom from disease of the resulting crop is almost entirely governed by the efficiency of the spraying mixtures and methods. We exercise great care in our hand-picking but we can give no guarantees as to diseases or any other matters.

EARLY ROSE—An old favourite for the home or market garden.

Write for SPECIAL POTATO BOOKLET

We have not space in this catalogue to give full lists of all the varieties of Potatoes and have published a Special Potato Booklet, containing descriptions and prices. We usually have stocks of all the most popular varieties:

Early Manistee
Early Rose
Early Vermont
Early Manhattan
Carmen
Satisfaction

Adirondack
Brownell's Beauty
Tasmanian Brownells
Factor
Up-to-Date

New and Choice Early Varieties.

Duke of York	Sharpe's Express
Early Puritan	Eclipse
Epicure	

What "HAND-PICKED" Means

The Seed Potatoes we offer are all prime, graded samples, drawn from the leading potato growing centres, carefully hand-picked in our own warehouse, outsized and diseased tubers being thrown out. It is quite impossible to guarantee Seed Potatoes to be free from the spores of Irish Blight, and the crop should be regularly sprayed where Blight conditions are prevalent.

— EARLY AUTUMN PLANTING —

In favourable years we usually have supplies of the popular varieties during the month of February. Write us then.

Look for the Stencil, YATES' HAND-PICKED SEED POTATOES, on every Bag.

SEED GRAIN FOR GREEN FODDER



Re-machined and Tested Seeds grow strong, even, healthy crops.

THE value of using only the heaviest and purest samples of Seed Oats or Seed Wheat for Green Fodder, has now been proved many many times worth the slight extra cost per acre for such seed. In unfavourable seasons it may mean the difference between a crop and a failure.

With the high cost of labour and high land values, it becomes more and more necessary to strive after the biggest yield and highest cash returns possible from every acre of cultivated land. To attain this it is essential to have well prepared land and strong-growing, healthy pure seed.

Yates' Re-machined and Tested samples, as illustrated above at the top, are prime seed heavily-graded and re-machined and tested for germination. Note (at bottom of illustrations) the large quantities of weak, shrivelled and broken seeds, and foreign weed seeds which have all been removed. Yates' Re-machined and Tested Seed Grains produce strong, even, healthy crops—the kind that make farming a payable proposition.

SEED OATS

We have found Algerian Oats to be by far the best variety for grazing; being of finer growth it stands a good deal of trampling, and its spreading habit and strong root growth prevent it from being easily pulled out. We recommend that a dressing of 1 cwt. of Bonedust or Superphosphate be used, also five or six pounds of Clover seed per acre be planted with the Oats. This will give a more balanced ration and so increase the milk flow; it will also maintain the fertility of the land, and give a good stubble-feeding during the following autumn. If shut up in the early spring a crop of hay may be harvested in addition.

For cutting purposes some of the vigorous-growing early Oats like Mulga, Sunrise, etc., may prove superior in the milder climates; these are tall-growing and have fleshy stems, and come very quickly; in fact, they grow almost as quickly as Barley and are superior to it for feeding value. They will, however, not stand extremes of frost like the Algerians, and, on account of their coarse fleshy growth, do not stand trampling and hard grazing so well.

For late sowing in the cold districts the Heavy varieties are preferred. Varieties usually available: Algerian, Myall, Guyra, Buddah, Mulga, Ruakura, Sunrise, Warrigal, Heavy White, Heavy Black.

SEED WHEATS

Wheat is largely used for green fodder and for hay, as well as being the world's most important grain crop. It stands dry conditions better than almost any other grain, and is therefore of great value for fodder and for hay, as well as for grain in districts of low rainfall. It will often give good crops in seasons which cause oats to be a failure.

Following are the varieties which are usually avail-

able, but as supplies are nearly always short of demand, early enquiries are invited.

Thew and Florence are of a special value for green fodder under coastal conditions.

Sow up to 2 bushels per acre together with a dressing of 56 lb. to 112 lb. superphosphate per acre, according to location and quality of the land.

Varieties usually available: Florence, Thew, Canberra, Soft Federation, Hard Federation, Yandilla King, Marshall's No. 3, Waratah.

BARLEYS

Barley is the earliest of the grain crops to mature, and in this earliness lies also its great value as a green fodder crop. It is one of the sweetest fodders grown, and is relished by all classes of stock.

For practical purposes the Barleys may be classed into three, namely:—Cape Barley, Skinless Barley, and English or Malting Barleys. Cape Barley is the one most generally used for green fodder; it grows very quickly, but as it is not so hardy as other grain, it is most suitable for early use in cold climates. Skinless is also a good variety, coming very early to maturity, and affording two cuttings; it should be grazed after each cutting; the close feeding seems to cause it to come again with renewed vigor. English or Malting Barley is usually grown for grain for malting purposes, but there are two varieties which absolutely stand out as green fodder sorts, viz., Trabut and Pryor.

Trabut is a heavy yielder, and abundant stooler, maturing two to three weeks earlier than Cape. Pryor is similar to Trabut, and is very leafy, with fine succulent stems.

These Barleys all make excellent silage. The addition of Field Peas when sowing makes a combined cereal-legume crop of high nutritive value.

Barley should be sown broadcast at the rate of 2 bushels per acre; if drilled, 1 bushel should suffice.

FODDER CROPS For SPECIAL PURPOSES



Sunflower in the field. Yields of 20 tons to the acre are obtained

BUCKWHEAT (Japanese)—A splendid quick yielding fodder crop and valuable for fowls. Japanese are the largest and most vigorous varieties. Sow 20 lbs. per acre.

CANARY SEED—So largely grow for bird seed. It may also be used for hay purposes, requires similar culture to wheat; sow 17 to 20 lbs. per acre. Queensland grown seed, and extra large seed, Morocco grown.

SUNFLOWER—Valuable, when growing, as shelter to young crops, and the seed forms a most excellent food for poultry and in fact all stock. Eight to twelve pounds will sow an acre in rows three feet apart, and it requires the same soil and climatic conditions as Maize. In U.S.A. it is now being used quite a lot for ensilage; it has been found of considerable value for this purpose. (Black Seeded or Striped).

MELONS, CATTLE—A mixture of suitable sorts. Generally the Cattle Pumpkins are to be preferred, but the Melons form a juicy stand-by fodder.

MUSTARD—For a quick green fodder for fattening lambs, Mustard can be recommended. Sow eight pounds per acre. It is also frequently mixed with Rape. It is ready a few weeks after sowing.

SILVER BEET—This plant is grown for the green tops, not for the roots, as with other Beets. It is found in New Zealand that the foliage is reproduced so quickly after being eaten down that it makes an excellent crop for sheep fattening. Plant in rows, 30 inches apart, so that the land can be hoed, and thin from 9 to 12 inches apart in the rows. Sow three to four pounds per acre.

SALTBUSH—This has been aptly described as the plant that makes fodder when feed is most needed. It is not difficult to raise from seed, cuttings or roots. Seed should be sown in the autumn or early winter, either direct or in a nursery bed and later transplanted.



Artichokes are Unexcelled for Pig Feed



Portion of a Paddock of Saltbush (*Atriplex nummularia*) on a Coonamble Station. It is reserved for use in drought periods.

Dept. of Agric. Photo.

On account of its thick succulent foliage it has proved very useful as a fire-break. We have two varieties:—**Atriplex nummularia** (Old Man Saltbush), grows 6 to 10 feet high with numerous branches, and **Atriplex semibaccata** (Creeping Saltbush), specially suitable for sheep.

We think that greater consideration than hitherto might well be given this plant by graziers in our western slopes and plain country. One pound should seed about an acre.

FODDER CROPS

for Special Purposes—Continued

Jerusalem Artichokes for Pig Feed

These are similar to Potatoes, and require the same cultivation, but we would plant in rows two to three feet apart. A most desirable and delicate vegetable. They yield very heavy crops and are excellent for pig feeding, especially where pigs can be turned in to root them out (see photo on opposite page), their fattening value is 25 per cent. greater than potatoes. Four to six cwt. will plant an acre.

A Tuberous Crop that is a Gold Mine

It used to be thought that dairy by-products were absolutely necessary to fatten pigs up properly, but it is now being realised that this is a fallacy. In other countries enormous numbers of pigs are raised and fattened largely by grazing them on fodder crops, notably Jerusalem Artichokes, leguminous crops, etc.

The fodder value of Artichokes is very similar to that of Potatoes, but the former have a slightly higher protein and fat content. In feeding Artichokes to pigs it is best to turn the animals into the crops to root out the tubers. Young growing pigs make considerable growth when fed with Artichokes in this manner for a short period, the exercise obtained in harvesting or rooting up the tubers having a beneficial effect. Few foods are more relished by pigs, and they are especially suitable for pregnant sows and also sows reduced in weight and condition after suckling and weaning big litters.

Mr. E. Breakwell, in his book, "The Grasses and Fodder Plants of New South Wales," writes about Jerusalem Artichokes:—

"Good food for pigs; tubers contain large amounts of sugar and gum, and will increase the milk flow. This crop has been grown with great success at Hawkesbury Agricultural College, the tops being used for silage, and the pigs turned in to eat the tubers. There are always sufficient tubers left in the field to produce the following year's crop. Yields of nine tons per acre have been obtained.



Types of the strong, healthy Artichoke Tubers which we can supply during the months of June, July and August.



A heavy crop of the profitable Gramma Pumpkin.

Cattle Pumpkins

Cattle Pumpkins make an excellent winter feed for milking cows and young calves. Early spring sowing is best as it allows them plenty of time to ripen and they then keep much longer. Store in a dry airy shed leaving the short stalk attached. 1 lb. will sow an acre. We keep the following varieties:—

Mammoth Cattle—Very large, heavy cropper.

Gramma—A long shaped variety, big yielder (see special article below).

Mixed Cattle—Including types of Ironbark and similar varieties, excellent for productiveness and keeping quality.

Gramma Pumpkins as Cow Fodder

That the Gramma Pumpkin is of great value for cow fodder has been amply proved by Mr. E. H. K. Downes, of Camden, who grows three or four acres of this crop every year. It is a heavy yielder in normal seasons, but in very good seasons Mr. Downes estimates that nearly forty tons of Pumpkins have been produced on every acre, and says that no other fodder crop gives him an equal return. The Pumpkins are sliced on a Turnip Slicer and fed to the cows with silage or other material to make a balanced ration. Some 60 tons are now stored away for this purpose.

Mr. Downes is consistently selecting to the pear shaped varieties and discarding the goose neck types. By this means he has gradually reduced the seed content to a minimum, thus obtaining a solid body of flesh and consequently greater food value.

The Gramma Pumpkin seed which Messrs. Arthur Yates & Co., Ltd., offer is saved by Mr. Downes and purchased direct from him.

A Profitable Side Line!—

MARKET GARDEN CROPS

FOR SPRING AND SUMMER PLANTING

IN districts within reasonable distance of the centres of population and with a fair average rainfall, it is often well worth while for the farmer to reserve some of his best land for vegetable production for market.

The essentials for successful market gardening are good soil, good rainfall or facilities for irrigation, rotation of crops, intelligent use of fertilisers and regular cultivation.

Few crops average out as well as Cauliflower, Cabbage, Pea, Bean, Swede, etc., if grown under suitable conditions. It is best first to decide what crops are best suited for your conditions and then to grow them consistently on a well planned rotation. In this way you will obtain better returns than the grower who is constantly changing over and thereby often meeting a "glut" of the particular line he is growing.

For best varieties, time to plant and for cultural directions, farmers should be guided by local experience and the information given in Yates' Annual and Yates' Garden Guide (1s., post free).

The higher returns regularly obtained by experienced men are evidence that skill and care are very necessary in this branch of farming. Where conditions of soil and season are not favourable, and where varieties have been sown unsuitable to the time of planting or the district, the crop is likely to vary considerably in type, season of maturing and uniformity. Our advice is to grow those varieties your neighbours have proved to do well, and then make your own experiments in a small way as to the suitability of later introductions and improved sorts.

Attention is directed to the Conditions of Sale and Non-Warranty set out on page one and on all invoices.

BEANS

For the warmer districts round Sydney and on the North Coast, beans are the prevailing market crop, and in those districts where early crops are possible very handsome returns are being obtained. The same remarks as to the desirability of growing this crop apply as they do to Peas. As to varieties, Canadian Wonder is the standard sort, but there are inferior strains offering. **Yates' Selected Canadian Wonder** are the prime samples offering of a heavy cropping type. A new variety which is quickly becoming known and sought after is **Feltham Prolific**, which is very early and an exceedingly heavy cropper. Usually two bushels per acre is a good sowing, and we advise sowing in drills far enough apart to permit of frequent horse cultivation in the early stages of the crop. Prices on application.

CABBAGES

Cabbages do best on rich deeply worked soil, and are largely grown on the cooler upland country near Sydney. The main planting should be made in December, January and February in most districts. Raise the plants in seed beds, transplanting out in rows when large enough to handle, 24 to 30 inches apart each way. About $\frac{1}{2}$ -lb. of seed is required to raise plants for one acre. The two leading sorts are:—

YATES' EARLY DRUMHEAD.—One of the finest market cabbages grown. There is no better variety for standing the hot summers. The heads are large and solid, and in good seasons it matures in four months. We offer Yates' Specially Selected Strain, grown on our own Seed Farm. This strain has given every satisfaction. We also stock European grown seed.

SUCCESSION.—This and Yates' Early Drumhead are the two main cabbages used by market growers throughout Australia. It is a week or two earlier than Drumhead, otherwise very similar. A good carrier and the best and longest standing cabbage for autumn planting for spring use. Unfortunately supplies of our renowned Derwent Succession are

now exhausted, but we can supply **Peter Henderson's Grown Stock** (see illustration next page), which has proved excellent in our trials, and also good European seed.

Other sorts likely to be of interest and worth trying in certain districts are:—**Yates' Vanguard**, **Yates' Utility Copenhagen Market**, which are all of the early solid, round head type; **Winningstadt**, a pointed cabbage but a sure header and good carrier, and in great favour in California; and **Allhead** and **Surehead**.

CAULIFLOWERS

These are somewhat uncertain, but where success is attained the profits are usually exceedingly satisfactory. The main thing is to grow them in good rich soil and rush them on quickly.

In dry weather they should be well watered, especially just after planting out.

Plant in December, January or February—this will generally give the best results.

Sow $\frac{1}{2}$ -lb. of seed for every acre of plants required. Varieties suitable include our two Specialities:—**Yates' Phenomenal Early** and **Yates' Phenomenal Maincrop**, which are rapidly capturing the Sydney Market; **Early Italian Giant**, **Veitch's Autumn Giant**, **Late Italian Giant**, and **Late Metropole**, which are self-protecting varieties, coming in from five to eight months in the order listed; and **Early Short Stemmed Eclipse** and **Late Eclipse**, which are excellent market sorts of the open or Dutch type.

MELONS

There is always a demand for well grown fruit, and this applies particularly to the Rock Melon, which is such a favourite. Both Water Melons and Rock Melons can only be sown in the Spring when the ground is warm. Light rich well manured soil and plenty of warmth and moisture will produce splendid crops. The Rock Melons particularly in favour for market growing are **Rocky Ford**, **Early Hackensack**, **Greeley Wonder**, and **Paul Rose**, while in Water Melons growers usually ask for **Yates' Market Wonder**, **Kleckley's Sweets**, **Cuban Queen**, **Tom Watson** and **Halbert Honey**.

MARKET GARDEN CROPS—Continued

The Superlative Market Cabbage



Henderson's Succession.—Grown and supplied by the originator, P. Henderson, New York.

CUCUMBERS

Cucumbers are a paying proposition to many small farmers in moist, mild districts. The seed must be sown in the Spring, when all danger of frost is over, in hills about four feet apart each way. The soil must be in good condition and be liberally manured, and to produce fruit of true character the plants must not be checked in any way. About $\frac{1}{2}$ -lb. of seed is sufficient per acre.

For the Sydney market **Improved White Spine** is undoubtedly the best for the main supply, it is of medium length, thick and solid; **Early Fortune**, a darker coloured strain of White Spine has been specially evolved for market growers; **Apple Shaped** is another good Market sort rapidly gaining favour with buyers; by reason of a partial crop failure, supplies of seed of latter variety are very short this year.

PEAS

In the Highland districts around Sydney and on the Tablelands, many farmers now devote a portion of their holding to the growing of green peas for the Sydney market, and in recent years this has proved very profitable. The growing of peas or beans for the vegetable market is excellent practice from a rotation point of view; it rests the land from ordinary farm crops, gives it the advantage of a leguminous crop, and leaves it in an improved condition for succeeding crops. A fair quality of land and a reasonable use of suitable manure are advisable for the best results. The most favoured varieties for market gardeners are:—**Witham Wonder**, **William Hurst**, **Richard Seddon**, **English Wonder**, **Greenfeast**, and **Yorkshire Hero**, and we shall be pleased to quote on application. Usually 2 bushels per acre is a good

sowing, and we advise sowing in drills far enough apart to permit of frequent horse cultivation in the early stages of the crop.

PUMPKINS

We have given special attention during the last two or three years to careful Trial Ground Tests of the various strains of Pumpkins. For a long time the ordinary commercial stocks of Pumpkin seed have not been altogether satisfactory, and we therefore set out, by selecting and re-selecting the better strains and eliminating the poorer type, to make up a list of only first-grade reliable sorts. Information gained from our trials showed that some of the older types have been entirely superseded, and also that the higher costs necessary in the production of the improved strains are more than justified.

We consider that the three finest types in cultivation are Yates' **Queensland Blue**, a pumpkin of exceptionally fine quality and flavour, dark skin and beautiful golden flesh; Yates' **Triamble**, the well-known distinctive three-cornered variety, and Yates' **Select Crown** (Sydney Type), a re-selection from the old Crown strain, and superior to it in quality and productiveness. Sow at the rate of 2 lb. per acre during late spring in hills and about 8 ft. apart each way.

HUBBARD SQUASHES

It is our opinion that the Hubbard varieties of Squash would be even more extensively grown if those who do not know them would but try them. They are classified as winter varieties, this means that they are later than the summer varieties in maturing, and keep excellently when properly stored. In this respect they are like the better class pumpkins. The fruits mature in about four months from planting the seed, and the yields are very satisfactory. The flavour of these Squashes is all that can be desired, the flesh being dry, mealy, sweet, and altogether delectable. We have the **Blue**, **Green**, **Golden** and **Warted** varieties. For detailed descriptions, see Yates' Annual.

TOMATOES

Tomatoes are now grown very extensively and are yielding very good returns to those marketing clean, sound, well-graded fruit.

For instructions and general information regarding Tomato culture for market, we would refer readers to our Tomato booklet (post free on application). We are offering varieties claimed to have more or less resistance to the wilt disease, and we believe that it is through this quality of "resistance" when more fully developed that the wilt disease will be overcome. In the meantime we suggest these varieties be tried out under growers' local conditions, and that the market crops, especially the early planted areas, be sprayed every fortnight with Lime Sulphur or Bordeaux Mixture.

The useful varieties for market are Yates' **Earliwinner**, Yates' **Harbinger**, **Earliana**, **Chalk's Early Jewel**, **Bonny Best**, **Burwood Prize**, and **Stone**.

The different varieties only show their true character under favourable conditions; two ounces should raise sufficient plants for one acre. See Yates' Annual for descriptions.

TREE PLANTATIONS

Round the Homestead

One thing that strikes the observer about many of our country homesteads is the absence of shelter or shade trees. How much cooler and more attractive a country house looks when it is nestling and half hidden in a grove of trees. But trees have their commercial value also, and quite a number of species are edible for stock, and their value in the dreaded drought time is incalculable.

The value of shade and shelter to stock is often underestimated by pastoralists. A little rough hill covered with stunted gum trees is worth much more for the shelter it provides than the small amount of grass it would grow if it were rung. Tree planting is a trifling investment, and in after years the return in shelter, beauty, intrinsic timber value, and the enhanced worth of the property as a whole, is inestimable.

THE planting of trees is a very small expense and the benefit they bring in after years will repay this many times over. The ground should be worked up and prepared for them in the early autumn months, as in all but the coldest places winter planting is usually best. When planting be careful to put the subsoil in first and surface soil on top, and trample it well down, so that the young roots may be able to grip the soil. While the trees are young, light guards or netting are necessary to protect them from stock or rabbits.

E signifies Evergreen.

D signifies Deciduous.

Edible Trees and Shrubs

KURRAJONG (*Sterculia diversifolia*) **E.**—A tree that combines palatability and a relatively high nutritive value as a fodder, with ability to grow in almost any part of our pastoral country, and great use for shelter and a fine appearance, surely deserves to be widely planted. What finer investment for the pastoralist than plantations of this beautiful tree. Although slow growing at first, it will in a few years form a very shapely tree, and the rate of growth will probably be accelerated with a little judicious cultivation round the tree. The chemical analysis of the foliage is very good, and after any long dry spell the lopped trees one sees everywhere is the best testimony to its value. The more care that is exercised when lopping, to take only the finer branches, the quicker the tree will recover.

Seed should be sown from autumn on to early spring, and usually germinates readily. The seedlings must, of course, be given protection if planted in the paddock, but growth will probably be quicker if they can be put out in blocks and fenced off and the ground worked now and again. Plants are always available and may be put in any time.

CAROB BEAN TREE (*Ceratonia siliqua*), **E.**—This is a hardy evergreen well suited to hot dry climates. The seed pods are edible for stock. Plants may be put in any time.

HONEY LOCUST TREE (*Gleditsia triacanthos*), **E.**—A leguminous tree having pods of a very rich food value. This tree has given very good results at Hawkesbury Agricultural College as shelter, shade and food for pigs, and should be adapted to a wide area of New South Wales. Seed may be sown in the autumn and plants can be put in any time if attended.

TAGOSASTE (so-called "Tree Lucerne"), **E.**—A quick-growing shrub or dwarf tree. It makes excellent shelter round the fences of paddocks, and in periods of drought and scarcity would make an excellent stand-by for feeding. We do not value it very highly as a fodder, but used as above it is well worth growing. It is also unequalled as a breakwind round an orchard or garden. Having a deep tap root it does not rob the surrounding land as other trees do; in fact, crops can be successfully grown close up to

them. In its flowering season it gives a great harvest to the bees. The plants are easily raised from seed, which should be soaked in warm water before planting. It is best to sow the seed where they are to grow, afterwards thinning them to proper distances apart.

Trees for Ornamentation

LOPHOSTEMON or **CINNAMON BOX** (*Tristania conferta*), **E.**—A valuable shade and street tree of very rapid growth, suited to warm coastal districts. Strong plants are always available.

CAMPHOR LAUREL (*Camphora officinalis*), **E.**—One of our very best evergreens, doing well in all but very dry places. For a tall hedge or dust break it is unsurpassed. Plants always available.

PINUS INSIGNIS (**E.**)—This needs no description, being almost universally known. Suitable for the tablelands and for bleak situations on the coast. Plants may be put in any time, while if the seed is preferred it should be sown in the autumn.

PLANE TREE (*Platanus orientalis*), **D.**—A beautiful tree for avenues or specimen planting. Suited to all except dry inland climates, plants should be put in during the cooler months while the leaves are off.

PEPPER TREE (*Schinus molle*), **E.**—No tree is more suited for the hot, dry inland districts than this. It provides an abundance of shade and grows rapidly. Plants may be put in any time, while the seed is best sown in the autumn.

MAHOGANY GUM (*Eucalyptus botryoides*), **E.**—A very fine and beautiful shade tree which does well in most climates. Seed is available and should be sown in autumn, while plants can be put in any time.

SUGAR GUM (*Eucalyptus corynocalyx*), **E.**—Largely planted for fodder and shelter purposes. We always have seed and plants, the latter can be put in any time of the year if they are given a little attention.

SILKY OAK (*Grevillea robusta*), **E.**—A valuable ornamental and timber tree, it makes one of the very finest cabinet woods. We have no seed, but can supply strong plants which can be put in any time of the year.

For Prices, see "Yates' Annual." (Special Prices for Large Quantities, see page 125 "Yates' Annual," 1928)

PRICE LIST

- - SPRAYING - - PREPARATIONS

As many of these preparations are poisonous, they should be kept away from children and domestic animals.

"RELIABLE" ARSENATE OF LEAD—For all chewing or leaf eating insects, such as pumpkin beetle, codlin moth, grubs, caterpillars, etc.

In Paste Form (1 lb. making up to 30 gals. spray), in tins, 1 lb., 2s. 6d.; 2 lb., 4s. 6d.

In Powder Form (1 lb. making up to 50 gals. spray), $\frac{1}{4}$ lb., 1s.; 1 lb., 3s.

YATES' "HAROLA" LIME SULPHUR—For all fungus diseases, such as black spot, mildew, rust, etc. 1 gal. makes 10-40 gal. spray, according to purpose. In sealed tins, 1 pt., 1s. 3d.; 1 qt., 1s. 9d.; $\frac{1}{2}$ gal., 2s.; 1 gal., 3s. 6d.; 2 gals., 6s. 6d.; 4 gals., 8s.; 42 gal. casks, 1s. 9d. per gal. (casks, 7s. 6d. extra, returnable).

"RELIABLE" BORDEAUX MIXTURE—For Irish Blight on potatoes and similar tomato diseases. (1 lb. makes up to 10 gal. according to purpose required).

Powder—Per $\frac{1}{4}$ lb., 9d.; per 1 lb., 2s.; over 10 lbs., per lb., 1s. 9d.

BLIGHTY MIXTURE—For spraying potatoes, grape vines, and tomatoes (1 lb. makes up to 6 gals.).

Powder—1 lb., 1s. 9d.; 7 lbs., 10s. 6d.; 20 lbs., 27s. 6d. Special prices for large quantities.

HARBAS—For scale, woolly aphis, etc., on fruit trees (1 gal. makes 20 to 30 gals. spray). Per 1 pint, 1s. 6d.; 1 quart, 2s. 3d.; $\frac{1}{2}$ gal., 3s. 6d.; 1 gal., 6s.; 2 gals., 11s.; 4 gals., 17s. per tin; 42 gal. casks, 4s. per gal. (casks, 7s. 6d. extra, returnable).

"265" SNAIL EXTERMINATOR— $1\frac{1}{2}$ lb. tin, 1s. 6d.; $2\frac{1}{2}$ lb. tin, 2s. 6d.; 5 lb. tin, 4s. 6d.

BENZOLE EMULSION (in paste form)—For thrip, aphis, and Rutherglen Fly, 1 lb. makes 5 gals. spray. Per 1 lb. tins, 1s. 9d.

NICOTEN EFFECTO—For aphis, green fly, etc. Per bottle, to make 6 gals., 1s. 3d.; to make 12 gals., 2s. 3d.; to make 24 gals., 3s. 6d.; to make 48 gals., 6s.; to make 96 gals., 11s.

BLACK LEAF 40—For aphis, green fly, etc. Per bottle, to make 8 gals., 1s. 6d.; to make 16 gals., 2s. 6d.; to make 32 gals., 4s. 3d.; to make 64 gals., 7s. 6d.; to make 128 gals., 12s. 6d.

"XL" ALL NICOTINE LIQUID INSECTICIDE—Very effective and entirely free of any objectionable odour. 1 pint, 5s.; 1 quart, 9s.; 1 gal., 27s. 6d.

N.B.—No prices in this List include freight or postage, which is extra in all cases.

Follow the instructions when mixing sprays, as the right strength in many cases varies with the season of the year, and with the crop to be sprayed. Mix thoroughly when preparing for use, and keep fluid agitated to preserve uniform strength. See "Yates' Garden Guide," 1s. post free.

SPRAY PUMPS, ETC.

Select a good Pump, and after each use pass clean water through it to keep the valves and working parts in good order.

THE CRESCENT SPRAY PUMP—For use with bucket or kerosene tin (Success pattern). For private gardens or very small orchards, this is a very good pump. It has a foot adjustment, so that it can be used with an ordinary bucket, which, by the way, should be of wood if solutions of copper are used. It is all brass, with ball valves, and is well made. It is fitted with three feet half-inch delivery hose, a 14-inch brass lance, and a patent Bordeaux nozzle, which will deliver the water either in a solid stream or a coarse or fine spray. Price, 27s. 6d.; with 5 ft. hose without lance, 28s. 6d. Postage extra, N.S.W., 2s. 3d.; other States, 4s. 2d. For prices of extensions, etc., see following list.

THE "REGA" SPRAYER, Model A—Suitable for the garden, small orchard, poultry farm, garages, lime and whitewashing, etc., etc. Price, 27s. 6d. Postage—N.S.W., 2s.; Interstate, 3s. 8d.

THE "REGA" SPRAYER, Model B—This model is a little smaller than the Model A, and manufactured to meet the need for a cheaper pump. This pump has the same effective power and is equipped with the Patent "All Ways" Spray Nozzle—Price, 25s. Postage—N.S.W., 1s. 9d.; Interstate, 3s. 2d.

THE MYSTO KNAPSACK SPRAYER, No. 1—(Eclair pattern). These are splendid pumps for general use, well designed and strongly made. They are easily carried on the shoulders. These are used very largely in Great Britain for spraying potatoes for Irish Blight, as well as for fruit, trees, etc. We can thoroughly recommend them, especially for spraying Bordeaux Mixture. The tank is made of copper, and there is a good agitator. Pump is fitted with a double Vermorel nozzle. Price, £5, freight extra.

THE MYSTO KNAPSACK SPRAYER, No. 3—The same as No. 1, but well coated with tin internally, to prevent corrosion when using Lime Sulphur. Price, £5 10s., freight extra.

PUMP SUNDRIES—Brass Lance Extension and Tap, 2ft., 5s. 6d.

Bent Brass Extensions (6in. elbows) 2s.

"Blind" Caps for Vermorel type nozzles, permitting one to be closed 1s.

HOSE FOR SPRAY PUMPS—Strong well-made hose for "Crescent" and "Mysto" and other similar pumps, per foot 1s. 3d.

ATOMIZERS—Cheap and efficient implements, producing a very fine, misty spray.

"Rega" Continuous (solid brass) 9s. 6d.

"Rega," Tin (extra large) 3s. 6d.

Excelsior (Oxidised Tin) 3s. 6d.

Favourite (Tin) 3s.

SYRINGES—In Brass, with one rose and jet, 14 x $1\frac{1}{2}$, 7s.; 16 x $1\frac{1}{2}$, 8s. 6d.; 18 x $1\frac{1}{2}$, 9s. 6d.

NOZZLES—

Bordeaux—One of the most generally useful made 9s.

Mysto (Vermorel type), double swivel 9s.

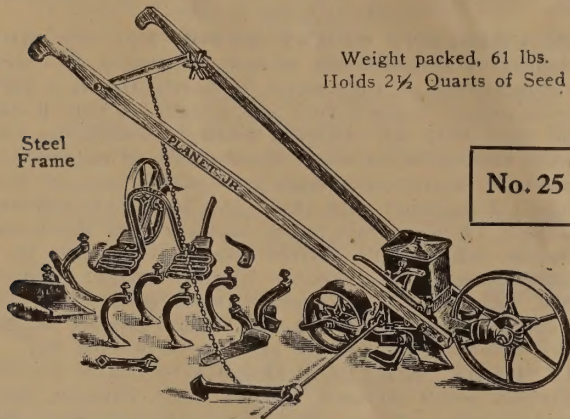
Mysto Hose Nozzle 4s. 6d.

Gem hose nozzle, $\frac{1}{2}$ inch and $\frac{3}{4}$ inch 4s.

Spray consistently. It is easier to prevent diseases and combat them at an early stage than to deal with them when serious and widespread.

PLANET JR. IMPLEMENTS

THE intelligent use of these wonderful labour saving implements is a big factor in the successful working of market gardens, orchards, etc. Provided reliable seeds only are sown, regular and accurate planting, followed by consistent cultivation, will do more than anything else to ensure big returns. We therefore offer the following machines with every confidence. They are the strongest and most useful in the market, and have an excellent reputation for design and durability.



No. 25—Planet Jr. Combined Hill and Drill Seeder Double and Single Wheel Hoe Cultivator and Plow.

An excellent hand machine for either garden or farm. As its name indicates, it is a well designed tool, combining the functions of an efficient seeder for sowing in drills and in hills, a double wheel and a single wheel hoe, a cultivator and garden plow. It will sow almost all varieties of seeds, and this, together with its many other uses, makes it one of the most valuable tools one can have.

Price on Rail or Steamer, Sydney . . . £5 17 6

No. 4—Planet Jr. Combined Hill and Drill Seeder, Single Wheel Hoe, Cultivator and Plow.

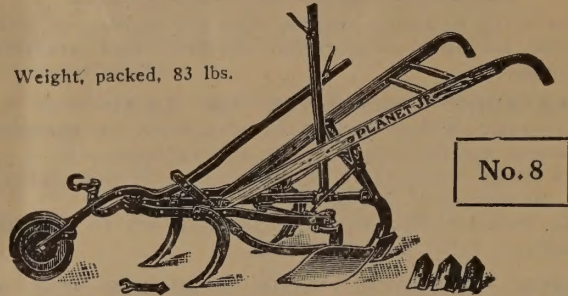
This is very similar to No. 25 illustrated and described above, but is more lightly built and has one less each, cultivator tooth, plow, and leafguard than the larger machine. Essentially it is built for a smaller garden and lighter work than where the larger machine would be needed.

Price on Rail or Steamer, Sydney . . . £4 15 0

No. 8—Planet Jr. Horse Hoe and Cultivator.

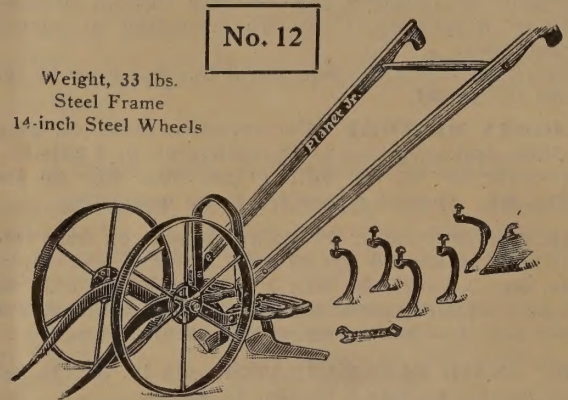
This horse machine is a general favourite, being complete and easily operated. Believing as we do that the more thorough cultivation, the more sure the crop, we would like to see at least one of these implements in use on every farm and large market garden. This machine is made almost entirely of steel, well braced and adaptable to any conditions. Frame of stiff steel, extra long and high, closes to 10 inches and opens to 25. Handles adjustable, up, down and sideways.

Cultivator teeth are of high carbon bevelled steel, thereby making them self-sharpening, and the points retain their shape, greatly prolonging the life of the steel. Patent hillers are reversible for hoeing or hilling. Can be run close to the plants without endangering the roots.



We would draw special attention to the depth regulator, which operates with the wheel lever. It is an important particular. It controls the depth and steadies the machine, and is adjusted in an instant. The solid steel wheel, having no spokes, does not clog with sticks, stones, or trash.

Price on Rail or Steamer, Sydney . . . £5 2 6



No. 12—Planet Jr. Combined Double and Single Wheel Hoe Cultivator and Plow.

A double and single wheel hoe in one, with high arch, so that crops can be straddled until 20 inches high—ensuring quicker and cleaner work. It may then be used between the rows with one or two wheels. Will do almost any kind of garden work—plowing harrowing, hoeing, cultivating, opening furrows, covering and hilling, and useful throughout the season. Tools are of special design and specially hardened, giving great satisfaction and long service. The hoes are the most useful attachment and wonderful weed killers. All steel cultivator teeth for deep or shallow work, reversible ploughs for opening or closing furrows, and leaf lifters for late cultivation.

To work effectively the ground must be in a good loose and friable condition. In heavy and badly worked land the use of this implement is not satisfactory.

Price on Rail or Steamer, Sydney . . . £3 0 0

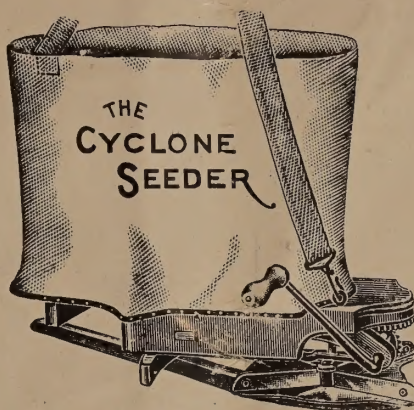
Full Catalogue, published by the manufacturers of these implements, will be sent on application.

BROADCAST SEED SOWERS

FOR sowing broadcast Lucerne, Clovers, Sudan Grass, Millets, Pasture Grasses, etc. and small areas of Seed Grain, these machines are excellent. We use them on our own farms for sowing Lucerne, Clovers, etc., and we find them of considerable value.

Cahoon Broadcast Seed Sower

A strong well-made machine capable of giving long and satisfactory service. Having filled machine and set gauge as per instructions, commence walking at ordinary pace, giving handle one complete turn each step. This will give a fine even sowing. Price, 35s.



Cyclone Broadcast Seed Sower

A very simple machine which has proved very satisfactory in service. The seed is distributed horizontally, the power being obtained by a cranked handle very conveniently placed. It has an oscillating feed agitating device and an automatic feed adjustment and shut-off. For a good, large sower that will distribute all varieties of farm seed, fertilizer, etc., this machine is strongly recommended. Price, 26s.

Chicago Broadcast Seed Sower

A superior type of bow seeder. It differs from the Cyclone only in the manner of operation. It is operated with a steel bow through a swivel guide. Price, 26s.

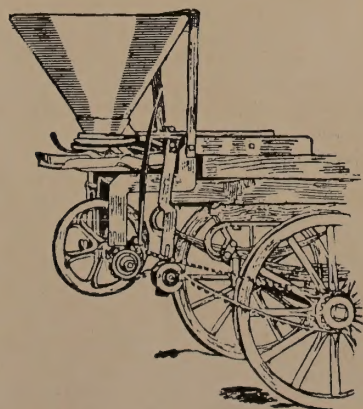
Yates' Manures and Fertilizers

For Bag Lots or over, write for Quotations.

HEAVY and continuous farm crops and good quality flowers and vegetables cannot be grown without manure. Manuring comes next in importance to physical condition of soil, which in turn is dependent on proper drainage, preparation and cultivation of land.

Ordinarily there is nothing to equal stable or farmyard manure, but for farm use it is impossible to obtain in Australia in required quantities. Artificial manures, however, have a very great value, especially if the humus content of the soil is kept up by crop rotation and green manuring. For general purposes superphosphate is an excellent fertilizer, but the following special manures are superior for their respective crops.

MANURES.	Cwt.		56lbs.		28lbs.		14lbs.		7lbs.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Superphosphate	8	0	4	6	2	9	1	6	1	0
Bonedust	11	6	5	9	3	0	1	9	1	0
Blood and Bone	11	6	5	9	3	0	1	9	1	0
Hydrated Lime	12	6	6	3	4	6	2	6	1	6
Sulphate of Ammonia	20	0	10	0	5	6	3	0	1	9
Sulphate of Potash	20	0	10	0	5	6	3	0	1	9
Nitrate of Soda	20	0	10	0	5	6	3	0	1	9
Yates' Plant Food	16	6	8	3	4	3	2	3	1	3
A.Y. Sweet Pea Manure	17	6	8	9	4	6	2	6	1	6
A.Y. Flowers and Shrubs Manure	15	6	8	0	4	3	2	3	1	3
A.Y. Potato and Tomato Manure	16	6	8	6	4	6	2	6	1	6
A.Y. Cabbage and Cauliflower Manure	15	6	8	0	4	3	2	3	1	3
A.Y. Onion Manure	15	6	8	0	4	3	2	3	1	3
A.Y. Pea and Bean Manure	12	0	6	6	3	6	2	0	1	3
A.Y. Pumpkin and Melon Manure	15	6	8	0	4	3	2	3	1	3
A.Y. Lucerne and Clover Manure	12	0	6	6	3	6	2	0	1	3
A.Y. Maize and Green Fodder Manure	15	0	7	9	4	0	2	3	1	3
A.Y. Maize (for Grain) Manure	13	0	6	9	3	6	2	0	1	3
A.Y. Stone Fruit and Strawberry Manure	15	6	8	0	4	3	2	3	1	3
A.Y. Citrus, Passion and Grape Manure	16	6	8	3	4	3	2	3	1	3
A.Y. Special Lawn Manure	16	6	8	3	4	3	2	3	1	3
A.Y. Rape and Root Crop Manure	13	0	6	9	3	6	2	0	1	3
A.Y. Hay and Pasture Manure	13	0	6	9	3	6	2	0	1	3
Powdered Carbonate of Lime, 5s. 6d. bag.										



The Dobbie Seed Sower and Fertilizer Distributor.

An Ideal Machine for Sowing Clovers and Pasture Grasses on broken country.

As the illustration shows, this machine is mounted on and obtains its power from a horse or motor driven vehicle. All parts necessary are supplied. Prior to the advent of the seed drill, it was used extensively as a distributor for grain seeds, lucerne, etc. Wheat can be sown in a strip 60 feet wide and up to 100 acres per day. It can be used over any country where the conveyance will keep upright, which is of course quite impossible with the ordinary drill. Full particulars and prices on application.

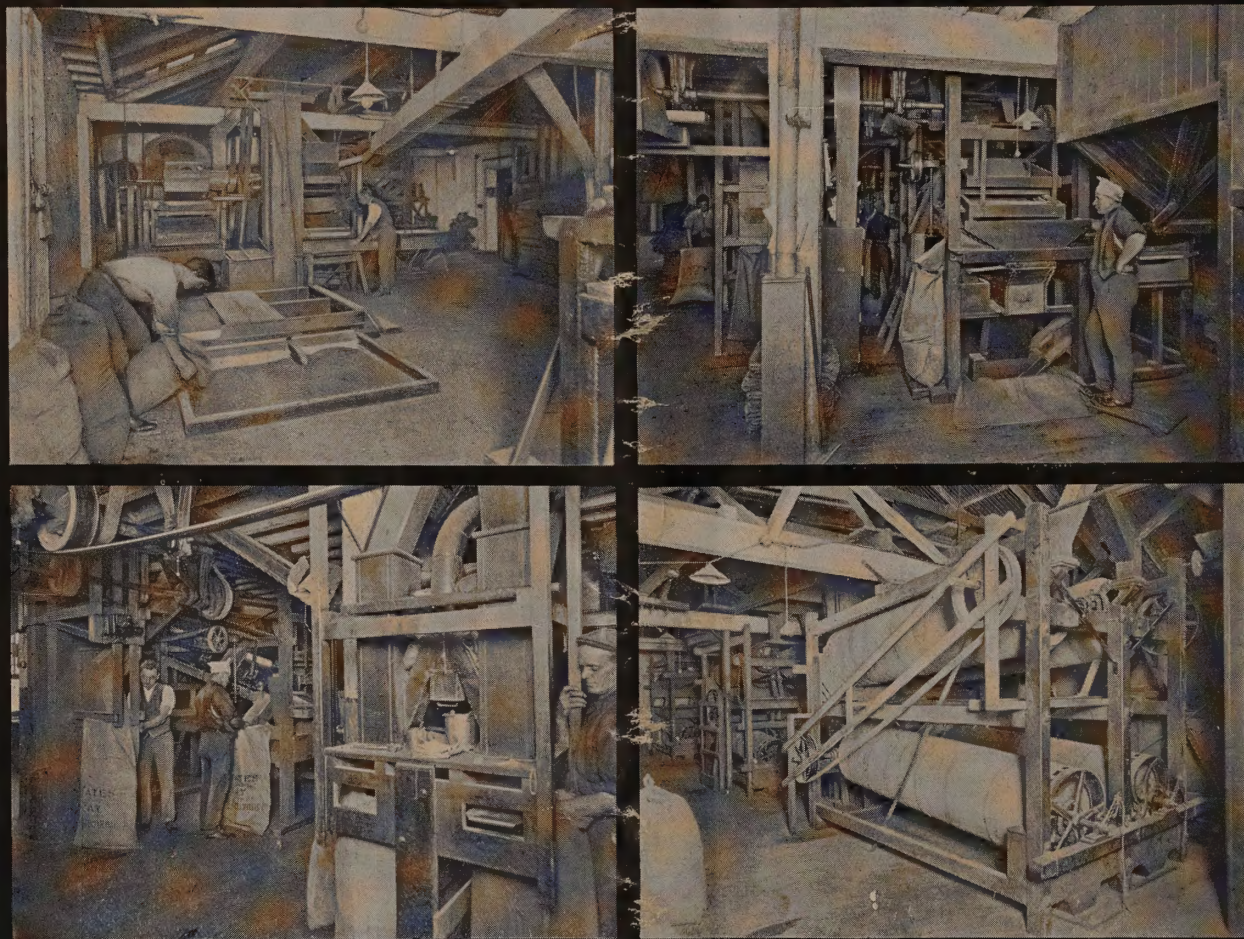
BOOKS YOU SHOULD HAVE

The Grasses and Fodder Plants of N.S.W., by Breakwell. Instructive and practical. Price, 6/-; postage 4d.

The Farmer's Hand-Book. The standard book of reference on Australian farming. Price, 10/6; postage 8d.

THE PRACTICAL ORGANISATION

Behind the words "Re-machined and Tested."



WE HAVE built up in our own warehouse what is undoubtedly the largest and most complete plant in Australia for the cleaning and dressing of Seed; much of this is of our own design and therefore particularly suited to our purposes. The proportion of farmers who realize the folly of sowing un-machined farm seeds is now very high and is ever-increasing, and in consequence of this we are continually adding to and improving our plant to cope with the demand.

Following on the visit of a member of our firm to the U.S.A. we have recently installed an additional and an entirely new type of machine, which, in conjunction with the present machines, will make possible still greater strides in eliminating weed seeds and foreign matter. We have at present seven complete series of machines all electrically driven and occupying some 6,000 square feet of floor space. They have a capacity of 18 to 20 tons of cleaned seed per day, and for the greater part of the year the whole plant is working at full pressure.

The main principles employed in modern Seed Cleaning are: Revolving Cylinders, Wind Blast, Surface Attraction (e.g., Velvet Rollers), Brushing. Each of these methods serves a particular purpose, but it is the continuation and the co-relation of two or more that means **Yates' Re-machined Seed**, and it is here that skill and long experience count.

In our testing department we now have two of the latest electrically heated Seed Testers which are giving extremely accurate results.

All this organisation and our long experience is at your service for a small extra charge over what must be paid for rough dressed Seed. **Is it not worth it?**